THE

CYCLOPAEDIA;

or,

Universal Dictionary

of

ARTS, SCIENCES, AND LITERATURE.

VOL. II.
THE CYCLOPÆDIA;
or,
UNIVERSAL DICTIONARY
OF
Arts, Sciences, and Literature.

BY

WITH THE ASSISTANCE OF
EMINENT PROFESSIONAL GENTLEMEN.

ILLUSTRATED WITH NUMEROUS ENGRAVINGS,
BY THE MOST DISTINGUISHED ARTISTS.

IN THIRTY-NINE VOLUMES.
VOL. II.

LONDON:
Printed for LONGMAN, HURST, REES, ORME, & BROWN, PATERNOSTER-ROW,
F.C. AND J. RIVINGTON, A. STRAHAN, PAYNE AND FOSSED, SCATCHERD AND LETTERMAN, J. CUTHELL,
CLARKE AND SONS, LACKINGTON HUGHES HARDING MAVOR AND JONES, J. AND A. ARCH,
CADELL AND DAVIES, S. BAGSTER, J. MAWMAN, JAMES BLACK AND SON, BLACK KINGSBURY
FARBERY AND ALLEN, R. SCOLEY, J. BOOTH, J. BOOKER, SUTTARIE EVANCE AND FOX, BALDWIN
CRADOCK AND JOY, SHERWOOD NEELY AND JONES, R. SAUNDERS, HURST ROBINSON AND CO.,
J. DICKINSON, J. PATERSO, E. WHITESIDE, WILSON AND SONS, AND BRODIE AND DOWDING.

1819.
AMARANTHUS. *Amaranthus*, formed from *amaranthos* and *eidos*, or from *α* and *μεγας*, and denoting incorruptible, because the flower being cropped does not soon wither, in Botany, a genus of the monocotyledonous class and order, of the *trianthria trigynia* of Gmelin’s Linnaeus, of the *miscellanea* of Linn. and *amaranthi* of Juff.; its characters are, that those species which have male flowers on the same plants with the females have a calyx, which is a five or three leaved perianthium, upright, coloured, and permanent, the leaflets lanceolate and acute; no corolla; the stamens have five or three capillary filaments, from upright patulous, of the length of the calyx, the anthers oblong and versatile; of those which have female flowers in the same raceme with the males, the calyx is a perianthium the same with the former; no corolla; the pistillium has an ovate germ, styles three, short and subulate; stigmas simple and permanent; the pericarpium is an ovate capsule, somewhat compressed, as is also the calyx on which it is placed, coloured, and of the same size, three-bent, one-celled, cut open transversely; the seed is single, globular, compressed, and large. Martyn reckons 29, and Gmelin 22 species. Those with three flowers comprehend, 1. *A. graecizans*, pellitory-leaved amaranth, with glomerules axillary, and leaves lanceolate, repand and obtuse. "The stem is a span high, smooth, grooved, and whitish, except at the base, where it is purplish; leaves smooth, green, and marked with lines; petiole very short; the glomerules in pairs, green, or five or five-flowered; and the calyx both of the male and female flowers is composed of three subulate, mucronate leaflets; a native of North America; cultivated in Chelsea-garden in 1723; flowers from July to September. 2. *A. albus*, white "with glomerules axillary, leaves roundish ovate, emarginate, and stem four-corrugated and simple." The stem is a span high, greenish white, decumbent and smooth; the leaves petioled, green, smooth, marked with lines, ending in an herbaceous, reflex, minute, whitish point; the petioles winged and channelled, and almost the length of the leaves; glomerules in pairs, sessile, and few-flowered; leaflets of the calyx oblong-lanceolate and whitish, with a green nerve, and at the end a subulate, herbaceous point; nearly related to the first species; a native of Pennsylvania, whence it was brought to Italy, introduced here in 1773 by M. Thouin; flowers in July and August. 3. *A. demissus*, "with spike very short with few flowers, leaves rhomb-lanceolate, and capillary not gaping;" the stem weak, filiform, decumbent, divided at the base into a few branches, green, except at bottom, where it is brownish, round, slightly decipitose and smooth; leaves green and smooth; petioles channelled and green; spike solitary, composed of only five or six flowers; no lateral glomerules; but a flower or two scattered in the axils of the leaves; the calyx five-leaved; leaflets diaphanous, white, oblong, and edged with green; dilignified from the rest by the capillary not opening transversely, but being entire. Its native place is unknown. 4. *A. polygonoides*, spotted-leaved A. blitum of Brown, Jamaica, and chenopodium of Burm. Zeyl. "with three-leaved glomerules, female flowers funnel-shaped, and leaves rhomb-ovate, emarginate." The stem is red and smooth; the leaves smooth and green; the petioles green and channelled; the glomerules axillary, with from six to eight flowers in each; the calyx of the female flower one-leaved and ventricose; the five segments spreading much, and transparent white; the capillus falling with the calyx when the seed is ripe; the calyx of the male-flower three-leaved, membranaceous and transparent; the leaflets oblong and obtuse, with a green nerve. This species varies in different situations, it resembles the second, but differs from it in having the stem round, and the calyx of the female flowers one-leaved and funnel-shaped; it is found wild by waysides and among rubbish in the tropical countries of Asia, Africa, and America, as in Jamaica, Guiana, Senegal, Guinea.
When in wrinkled, July. pairs, small by it; the colour is of kind the three-petal purple-coloured; it is a spike, native culture, Virginia simple branch it not its A. 1656 Tradefcant, the different 1731 of "of" ked, violet A. "with glomerules subspikspike, rounded, leaves elliptic, cuneate, and upright leaf." This species is a native of Virgina and Guiana; was cultivated in 1768 by Miller, and flowers from July to September. 14. A. trifis, round-headed A. "with glomerules in loose spikes, leaves subcordate-ovate, marginate, shorter than the petioles." This species is nearly related to the last, but may be easily distinguished by its upright stalk, more loose and slender spike, rhomboidal leaves, and five-leaved calyx: it is a native of China, Cochin, Ambon and Brail, and used as we do spinach; cultivated in 1759 by Miller, and flowers from June to August. 15. A. Blium, leaf A. or blite, "with glomerules subspikspike, three-leaved flowers, leaves ovate-retuse, and disfigured leaf." There are three varieties, viz. billium album majus, bl. majus rubrum, and bl. rubrum minus. This is a native of all Europe, except the very cold parts, Japan, &c. in cultivated grounds, on duaghills, banks, among rubbis, &c. 16. A. flavens, climbing A. "with spikes interrupted, compound, spiklets, bent in, leaves ovate, and stem weak." It resembles the foregoing species, and is a native of America. The species with five flowers are, 17. A. helicus, "with flowers in simple spikes, axillary, and glomerate, and leaves ovate, acute." It is doubtful whether this is a distinct species, or merely hybridous: it connects, in point of outward form, the three-flamed and five-flamed amaranths, varies much, and its native place is not known. 18. A. hybriit, clustered A. "with racemes decumbent, hipped, erect, and leaves ovate-lanceolate." Wildenow enumerates four varieties: 1. wholly green; 2. with a red stalk; 3. with the racemes reddish, the red green; 4. with red racemes. These differ in appearance, but are produced by the same feed. This species is found wild in Virginia and Arabia Felix; was cultivated in 1656 by Mr. J. Tradefnant, jun. and flowers from June to September. 19. A. flerius, "with racemes compound, erect, rigid, and leaves ovate, concave." This differs from the five-flamed species in its upright racemes propped close to the stalk, and the stiffness of the whole habit. Its native place is not known. 20. A. levis, "with racemes compound, erect, and leaves ovate, obtuse, and mucronate." It much resembles A. hybridus, but is distinguished from it by having the leaves blunt at the end, and being much smaller in stature, the stem never rising more than a foot high. 21. A. eruvin, various-leaved A. "with racemes decumbent, naked, patulous, and leaves lanceolate-ovate." This species varies, of a shining red colour, with a red stalk, with pale leaves, with a green stalk, with varied leaves, &c. When first cultivated in England in 1728, the stem was wholly red and smooth, the petioles, ribs, and nerves of the leaves underneath purple; the spikes purple, much spreading, and a little nodding. They were very beautiful for the first two years, but the seeds degenerated, and the plants had little beauty. It is a native of the East Indies and of China, and flowers from June to August. 22. A. hypochri-driaeus,
Amaranthus acutus, prince’s feather A. "with racemes compound, crowded, erect, and leaves oblong-lanceolate, and mucronate." This approaches very nearly in structure and variegations of colour to A. hybridus, and is distinguished from it, but not without difficulty, by the greater redness of the racemes, and sharpness of the leaves at the end, and by the base of the leaves running far down along the petiole; upon the whole, says Mr. Mutyn, it seems to be only a variety of that. It is a native of Virginia, and flowers from July to September; was cultivated by Miller in 1739, but is now become a common weed, frequently growing upon dung-hills, and abundantly scattering its seeds. 23. A. fanguinum, spreading or bloody A. "with racemes compound, erect, branches spreading and smooth, and leaves oblong and acute." The seeds were sent to Mr. Miller from the Bahama island before 1755, as an elegant plant, bearing fine flowers; and he describes it as growing three feet high, with purple flanks and leaves, the spikes short and swelling out in the middle; and at the extremity of the stalk arises a large cluster of spikes transversely, with one upright stalk in the middle; and those are of a bright purple colour at first, but become darker as the seeds ripen; it flowers from the middle of June to September. 24. A. paniculatus, "with racemes compound, branches spreading, pubescent, and leaves ovate-lanceolate." This differs from A. fanguinum in its pubescent branches, pointed calyces, clavate glomerules, and the whole habit; it is a native of America. 25. A. retroflexus, hairy A. "with racemes super-decompound, erect, branches pubescent, and leaves ovate waved." It approaches to the last species in the pubescence of the racemes, but differs in having green spikes, tomentose-fimbriate bracts, and leaves waved about the edges; it is a native of Pennsylvania, flowers from July to September, was cultivated by Miller in 1759, and is now become a common weed in many gardens near London. 26. A. chlorocephalus, "with racemes compound, nodding, and lanceolate leaves." It resembles A. retroflexus, but differs from it in its smooth stalk, lanceolate, flat leaves, glomerules in more dilated racemes, and in being much more slender; its native place is not known. 27. A. flavus, pale A. "with racemes compound, nodding, and leaves ovate-lanceolate." It differs from the last in the form and waving of the leaves, in the red lines on the stalk, in the red rachis of the flowers, and in the greater clofenes of the racemes; and from A. retroflexus, in having the leaves less waved, ovate-lanceolate, and much less obtuse, the stem at bottom and the petals smooth, and the colour in the stem, rachis, and veins of the leaves red. The flowers, notwithstanding the epithet flavus, are always green, and only turn yellow as the seed ripens; it is a native of the East Indies, and cultivated by Miller in 1768. 28. A. caudatus, pendulous A. or love-lies-bleeding; there is a variety, which is A. maximus, or tree A. the blitum maximum of many authors. This last is made by Mr. Miller a distinct species; it rises to the height of seven or eight feet; the spikes are seldom half as long as the other, which are 2½ feet, but much thicker. This degenerates gradually into the smaller; and the seeds, which are at first white, become red. It flowers in August and September, and was cultivated in 1803 by Mr. James Sutherland: it is a native of Perba, Ceylon, Guiana, Peru, &c. 29. A. frumentius, prickly A. "with racemes terminating, compound, and axillately." This varies, with the spikes and stem reddish; a native of the East and West Indies, Guiana, Guiana, &c.; in the former it is eaten as a green boiled with bafella cordifolia; it was cultivated in 1803 by Mr. J. Sutherland, and flowers from July to September.

The amaranths are annual, herbaceous plants, and most of the species are used as culinary plants in hot countries.

Culture of Amaranthus. Those most worthy of a place in the pleasure-garden are the 8th and 12th; but they are tender and require attention. They are usually sown in pots, with cocks-combs and other flowy plants for adorning court-yards, and the environs of the house. Next to these are the 23d and 28th sorts, for the ornamentation of the principal borders in the pleasure garden or parterres. The seeds of these should be sown in a moderate hot-bed, about the end of March; and when the plants come up, they should have air in mild weather. When they are fit for transplanting, they should be removed to another moderate hot-bed, and placed at six inches distance, watering and shading them till they have taken new root; afterwards they should have free air, and frequent but gentle waterings. In the beginning of June they should be taken up with large balls of earth to their roots, and planted either in pots or the borders of the pleasure-garden, shaded till they have taken root, and afterwards frequently watered in dry weather. The tree Amaranthus must be planted in a rich light soil, and if it is allowed room, and well watered in dry weather, it will grow to a large size, and make a fine appearance. The 21st is a tender plant, and should be treated like the 23d and 28th. The other sorts are sufficiently hardy to bear the open air, and may be sown on a bed of light earth, in the Spring, and when the plants are fit to remove, transplanted into any part of the garden, where they will thrive and produce plenty of seeds. The 23d and 28th sorts must be sown on a good hot-bed in February, or at the farthest in the beginning of March; and they will rise in about a fortnight; soon after which another hot bed must be covered with good, rich, light earth, about four inches deep; and the plants carefully raised and pricked out into this bed, at the distance of four inches every way, and gently watered. In the middle of the day let them be covered with mats from the heat of the sun, and raise the glasseys to give them air; the glasseys should be kept dry, for the moisture exhaled by the fermenting dung and perspiring seeds is very injurious. When the plants are firmly rooted give them air every day, more or less, as the weather is cold or hot. In about three weeks or a month these plants will have grown so as to meet, and must be removed into another hot-bed, with the same rich earth, about six inches thick; observing to take as much earth about their roots as possible, and to plant them at the distance of six or seven inches every way, watering them so as to settle the earth about their roots. In the heat of the day let them be shaded; refresh them often with gentle watering; and give them air according to the heat of the weather, and cover the glasseys every night with mats. In three weeks more, the plants will have acquired a considerable size and strength, and should be exposed more and more to the open air, when the weather will permit, and thus they will become sufficiently hardened to bear being removed into the places where they are to continue the whole season; but they should not be placed in the open air till after the first week in July, and this should be done, when the air is perfectly soft, and, if possible, in a gentle shower of rain. These plants, when grown to a good stature, perspire very freely, and should, therefore, be every day refreshed with water, if the weather be hot and dry. By this management fine amaranths may be obtained; and these plants, when properly reared, are the greatest ornament to a good garden, for upwards of two months in the latter part of the summer.

Amaranthus are very prolific. Willdenow says, that he sowed eight ounces of seed from one plant of A. caudatus. The seeds retain their germinating quality for several years, but continue longer in the ground than fresh seeds, which
AMARANTHUS. See ACHLYANTHES, CELOSIA, ILLECEBRUM, IRIS, and RIVINA.

AMARANTHUS helenus. See GNAPHALIUM.

AMARANTHUS malvinus. Vide, ind. 3. i. 52. f. C. C. This is also the true impatiens malvinus of Slose, Catal. p. 2. Jan. i.p. 56: the myriamus cavanum malvinus of Hill, part. p. 3, and cerebrites of Knorr. diff. tom. A. 51. f. 1. 2. - Linnæus describes it under the specific name of areola, as a mediterranean. See AREOLA.

AMARDIUS. In Ancient Geography, a river of Media, which discharged itself into the Caspian Sea.

AMARELLA, in Botany. See GENTIANA.

AMARGURA, in Geography, an island in the Southern Pacific Ocean, lying in S. lat. 17° 57', W. long. 175° 16' 54'. This was the first island discovered by Maurelle, in approaching the Friendly islands in 1781; he called it Amargura, i. e. bitter-ness, on account of his severe disappointment of obtaining refreshments from it; no landing place being found even for boats, and the island itself having a singular appearance of barrenness. In 1791, Captain Edwards coasted the north-west side of this island, observed much smoke upon it, and called it Gardner's island.

AMARICAE, in Ancient Geography, a people of Asia, in the interior part of Media, near the Mardi, according to Ptolemy.

AMARISCOGGIN RIVER, in Geography. See ANDESCOGGIN.

AMARISPPII, in Ancient Geography, a people of Asia, in Baorians, according to Ptolemy.

AMARNA, or AMARUSA, a town placed by Ptolemy in Harenia.

AMARULA, in Conchology, a species of helix, that inhabits the rivers and fresh waters in India's he Cell, imperator, or without unilabatus, oblong; whorls beft with fplinuous teeth. Linnaeus adds to this concise description, that the shell is black, without spots, the spiral flax fibrous, and the number of whorls either five or six, each armed along the upper edge with ten sharp spines: the aperture or mouth widely gaping and white, the exterior lip acute, the interior one thick. This shell is likewise defined by another author, buccinum tefla subvorta nigra; anfractuus furrum muri- catis; Mull. Hift. Vern. ii. p. 1371, n. 330, and is supposed to be the voluta flaviatilis of Rumpf. Muf. tom. xxxiiii. f. F. F. - Length from nine to nineteen lines.

AMARUMAYE, in Geography, a river of America, which rises in the Cordelier mountains, and after a course of four hundred leagues, joins the river of the Amazonas, in S. lat. 5°.

AMARUS, in Ichthyology, a species of the CYPRINUS, that inhabits the clear streams of Germany. Its specific character is taken from the number of bony rays in the pectoral and ventral fins, of which there are seven in each; as a secondary character the dorsal fin is said to contain ten rays, the anal eleven, and the caudal twenty rays. The head is small and cuneate or wedge-shaped, the eyes minute, with the iris red and yellow; the jaws equal, cover yellow. The body is sericulatus, fibrous and finely speckled with black; above the lateral line yellow, back greenish, chaly- bese-black near the tail. Upper fins reddish, lower fins greenish.

AMARYLLIS, derived either from the name of a shepherds' men, mentioned by Theocritus and Virgil, or from amaras or amari, pheasant, lilio-narces of Tournefort, in Botany, a genus of the hexandria monogyne class and order, of the natural order of ilia or lilaces, the fpathaceae of Linn. and nartiff of Jull.; its characters are, that the calyx is a fpath, oblong, obtuse, compressed, emarginate, gaping on the flat side and withering; the corolla has six petals, lanceolate, the nectarary has six very short scales without the base of the filaments; the lamina have six awl-shaped filaments, with oblong, incumbent, ridged anthers; the pistillum has a roundish, furrowed inferior germ, the style fiform, almost of the length and in the situation of the filaments, the stigma trifid and slender; the perispermium is a subulate, three-celled, three-valved capsule; and the seeds are several. The inflorescence of the petals, filaments, and pistil is very various in the different species of this genus; and the corolla in most of the species is rather hexapetaloid than six-petalled.

Gmelin reckons 27, Mr. Martin 29, and Wildenow 38 species.

Tho'fe with a one-flowered fpathae are as follow: 1. A. butus, yellow A. or autumnal narcissus, colchicum buteau-nana of Baalum, with an undivided obtuse fpathae, fpathic flower, bell-shaped corolla erect, shortly tubular at the base, and erect filaments, alternately shorter; the flowers feldom arise above three or four inches high; the green leaves come up at the same time, and when the flowers are pall, the leaves increase through the winter. This species recedes a little from the genus. It is a native of the south of France, Spain, Italy, and Thrace, was cultivated by Gerard in 1596, and flowers in September. 2. A. Pumilio, dwarf A. with two-leaved, one-flowered fpathae, corolla funnel-shaped, equal, segments revolute, and filaments bent in and alternately shorter. This is a native of the Cape of Good Hope, was introduced here in 1774, and flowers in November. 3. A. Amafoe, atamafoe lift, with fpathae bifid, acute, flower pedicelled, corolla bell-shaped, nearly equal, erect, shortly tubular at the base, filaments bent down and equal. The flowers are at first of a fine carnation colour on the outside, but fade till they are almost white; they appear at the end of May or beginning of June, and sometimes in August. This is a native of Virginia and Carolina, where it grows plentifully in the fields and woods, and was cultivated here by Mr. Charles Hatton in 1780. 4. A. formosia, jacobea lifty, so called, because some imagined that they discovered in it a likenes to the badge of the order of the knights of the order of St. James, in Spain, the lilio-narcissus and narcissus of others; with a fpathae undivided, flower pedicelled, corolla two lipped, nodding, deeply fpathed, filaments and pistil bent down. The flowers are produced from the fides of the bulbs, are large, of a deep red, and make a beautiful appearance; it is a native of America, first known in Europe in 1593, some roots of it having been found on board a ship, which had returned from South America. by Sion de Tovar, a physician at Seville; he sent a description of the flowers to Chiusus, who published a drawing of it in 1611, called by Parkinson, by whom it was figured in 1629, the Indian daffodil, with a red flower; cultivated in the Oxford garden in 1678, 5. A. tubiflora, with fpathae one-leaved, tubular, lished and one-flowered, and peduncle twice as long as the fpathae; found at Buenos Ayres, by Cormerston. 6. A. tubiflora, with fpathae one-flowered, two-leaved, corolla funnel-shaped, with a long tube; found in the sandy lands of Lima. 7. A. maculata, with fpathae one-flowered, two-leaved, linear, flower peduncled, filaments and styke bent down; found in Chili by Dombey. S. A. chilensis, with fpathae one or two-flowered, one or two-leaved, lanceolate, flowers peduncled, and leaves linear. The flowers, which are those of A. belladonna or reginae, are of a purple colour; found in Chili by Dombey. 9. A. elevata, with fpathae one-flowered, two-leaved, tubulate, and corolla club-shaped; native of the southern part of Africa.

The species with a two-flowered fpathae are, 10. A. reginae, Mexican lifty, "with fpathae, having about two flowers, pedicels divericating, corollas bell-shaped, shortly tubular, nodding, throat of the tube bifurcate, and leaves lanceolate, patulous;"
patulous;” the bulb is green, corolla scarlet, and at the bottom whitish green, the style red, the flowers large, of a bright copper colour, inclining to red: it flowered in Fairfield’s garden, at Hoxton, in 1728; and Dr. Douglas wrote a folio pamphlet upon it, giving it the title of *Elium reginae*, because it was in full beauty on the 11th of March, the queen’s birth-day: the roots were brought from Mexico, and therefore Mr. Fairfield called it Mexican lily, the name which it has retained: it flowers in the spring in a very warm house; it is in beauty in February, and in a moderate temperature of air, will flower in March or April. 11. *A. porpuracea*, purple flowered A. crinium speciosum of Linn. Suppl. “with spathes, having about two flowers, corollas somewhat erect, tubular at the bafe, throat of the tube smooth, and leaves linear-lanceolate;” nearly allied to the last: the corolla large, and of a blood-red purple colour; a native of the Cape of Good Hope, and introduced here in 1774. 12. *A. linearis*, crinium lineare of Linn. Suppl. “with linear leaves, bell-shaped corollas, two and narrower segments;” the flowers are large and white; found at the Cape of Good Hope. 13. *A. egyptris*, Barbadoes lily, A. dubia of Linn. Amoen. Acad. “with spathe having about two flowers, pedicles erect, shorter than the spathe, tube filiform and horizontal, border spreading, open obliquely and curved upwards, and throat hairy;” a native of the West Indies; introduced by Dr. W. Pitcairn in 1778. 14. *A. reticulata*, flat-ribbed A. “with spathes having about two flowers, corollas tubular at the bafe, and nodding, throat of the tube smooth, scape compressed, leaves oblong and attenuated at the bafe;” distinguished by the transverse veins of the petals and smoothness of the throat; a native of Brafia; and introduced by Dr. E. W. Gray in 1777. 15. *A. tatarica*, “with spathes having about two flowers, corolla sub-compaundated, and deeply six-parted, segments superior, very narrow, inferior obtuse acuminate, and leaves linear, longer than the scape;” found in Siberia.

The species with a many flowered spathe are, 16. *A. Belladonna*, Belladonna lily, “with corollas somewhat erect, six-petalled, petals flat, scape compressed, leaves sharply channelled, bluntly keeled, and very smooth.” This species differs from the A. reginae, by having the the edges of the petals waved, and not reverting at the tip: was first brought to England about 1712, from Portugal, abounds about Florence, and sold under the name of Narcissus Belladonna; usually flowered in England about the end of September or beginning of October, and the stem rises upwards of two feet in height; in a favourable season, and, when scented from frots, high winds, and heavy rains, will continue in beauty a month or longer, and is an ornamental plant. when other flowers are scarce; a native of the West Indies, on shandy hills, by the side of streams. 17. *A. vittata*, superb or riband A. “with flowers pedicelled, corollas wedge-tunnel shaped, the rachis of the outer felled to the edge of the inner petals, scape round, and filigmas grooved.” It is striped with red on a white ground, whence its name vittata or riband A.; in perfect bloom, it deferves the name of superb, given to it by Aiton, its stem rising to the height of three or more feet, and producing from two to five beautiful flowers; usually blooms in April or May; is probably a native of the Cape; and introduced into England by Mr. W. Malcolm, in 1769. 18. *A. fulata*, fiddle-leaved A. or crinium, “with corollas peduncled, erect, fix-petalled, scape compressed, of the length of the umbel, leaves flat, pressed to the ground, about the edge fiddle-shaped, white, cartilaginous and crenate.” It is a native of the Cape, and introduced here in 1774, by Mr. F. Maffon. 19. *A. ornata*, cape coast lily or A. “with flowers fefile, corollas tubular at the bafe, tubes longer than the spathes, and border, curved, segments of the border oblong, awned, lowest segment divaricate and concave.” It is a native of Guinea, probably cultivated by Lord Petre, in 1749, and flowers with us in June and July. 20. *A. longifolia*, long-leaved A. “with flowers pedicelled, 12-20 in a spathe, corollas tubular at the bafe, tube curved, short, segments of the borders lanceolate, obtuse, leaves broad subulate, channelled, and flaccid at the tip.” It is a native of the Cape of Good Hope, introduced in 1773, by Mr. F. Maffon, and flowers in July. 21. *A. montana*, “with many-flowered spathes, leaves linear-fusulate, petals alternate, mucronate, flaminus and fyle erect;” or, according to Willdenow, “with bell-shaped equal corollas, segments alternate, awned, flamines and fyle ftraight, and twice shorter than the corolla, foliose fcape and linear leaves.” This is a native of the higher parts of Mount Lebanon. 22. *A. seytnica*, Ceylon lily, Javan tulip of Ramphasia, “with many-flowered spathe, corollas reclining, tube fihiform, very long, and segment uncinate.” This is a native of the East Indies. 23. *A. revoluta*, revolute A. “with flowers pedicelled, corollas tubular, at the bafe, tube fihiform, short, curved, leaves linear, narrow, channelled, long, flaccid from their origin.” It is a native of the Cape of Good Hope, introduced here in 1774, and flowers in September. 24. *A. latispora*, crinium latifolium of Linn. Miller, and Rheed, “with many-flowered spathe, flowers pedicelled, somewhat reclining, tubular at the bafe; and leaves oblone-lanceolate.” It is found in the sandy foil of the East Indies. 25. *A. aurea*, golden A. “with flowers pedicelled, somewhat erect, corollas tunnel-form club-shaped, almost fix-petalled, segments linear, lanceolate, flamines and fyle ftraight, leaves linear, erect, channelled, with a reflex, smooth margin.” It is a native of China, introduced in 1777, by Dr. Fothergill, and flowers in August and September. 26. *A. orientalis*, broad-leaved A. Africa. “with many-flowered spathe, flowers pedicelled, fix-petalled, considerably shorter than the pedicels, irregular, germ wedge shaped and angular.” It is a native of the Cape of Good Hope, whence Mr. Miller received the roots which succeeded in the Chelsea garden; in the Kew catalogue, said to be introduced in 1707, by Mr. W. Malcolm. 27. *A. farrinosa*, ffilium fabricae of Douglas, who published a description of it in 1755, Narcissus of others, Guernfey lily, so called by Mr. Ray in 1665, “with petals linear, flat, flamines and pipil ftraight, longer than the corolla, filigmas parted and revolute.” The bulb is an oblong fheroid; the leaves are dark willow green; the number of flowers is commonly from eight to twelve, and circumference of each about seven inches; the corolla, in its prime, has the colour of a fine gold tiffie wrought on a rose-coloured ground, and when it begins to fade, it is a pink; in full sunfheine, it seems to be fudded with diamonds, but by candle-light the specks or flangues appear more like fine gold dust; when the petals begin to wither, they assume a deep crinm colour. The flowers begin to come out at the end of August, and the head is usually three weeks in gradually expanding. This beautiful plant is a native of Japan, and has been long naturalized in Guernfey. It is said to have been brought from Japan to Paris, and cultivated in Morrins garden before 1634. It was cultivated at Wimbledon, in England, by general Lambert, in 1659, and in 1664 became more common: it does not seem to have been in Holland before 1695. The plants are reputed to owe their origin in Guernfey to the shipwreck of a vessel returning from Japan, probably before the middle of the 17th century. The bulbs, it is said, being call on shore, took root in that sandy soil, and produced beautiful flowers, which engaged the attention of Mr. Hatton, the governor’s son, who sent roots to several of his friends. A variety of this found
found at the Cape of Good Hope is described by Jacquin, with many-flowered fpatha, corollas very patent, and reflex at the apex, filaments and pistil somewhat straight, longer than the corolla, and leaves uniform-linear. 28. A. marginata, with oblong revolute petals, filaments and pistil somewhat straight, longer than the corolla, linguiform leaves preflled to the ground, cartilagineous-marginate; or, according to Jacquin's description, with a many-flowered fpathe, corollas very broad, and reflex at the apex, erect pedicels, sublinguiform and prostrate leaves, terminated with a margin coloured, and undulated towards the apex. This is a native of the Cape of Good Hope. 29. A. turco-flora, with oblong, revolute petals, filaments and pistil somewhat straight, and longer than the corolla, with leaves stiff, linear-eniform and calcinated; or, according to Jacquin, with many-flowered fpathe, revolute, undulated corollas, erect pedicels, and leaves sublinear, widely channelled, and subfoliolated. This is a native of the Cape of Good Hope. 30. A. undulata, waved fflower African A. with linear channelled, waved petals, filaments and pistil bent down, shorter than the corolla, and oblitate figma. The flowers have no foecit, and expand from November to the beginning of January: a native of the Cape of Good Hope, introduced about 1767, by John Blackburn, cfl., and flowers here from April to June. 31. A. radicata, snow-drop leaved A. with lanceolate, waved petals, filaments and pistil bent down, diverging, twice as long as the corolla, and oblitate ligula. The native place of this species is unknown, cultivated by Miller in 1758, and flowers in June. 32. A. humilis, with three or four-flowered fpathe, lanceolate, fbringent-petalated petals, waved-reflex at the apex, with the lowest divaricated, the flaments and pistil ascending, shorter than the petals, and leaves linear, obtuse, smooth, naked and flat; or, according to Jacquin, with few-flowered fscapes, patent petals, the lowest divaricated, and leaves linear, obtuse, and flat. It much resembles the next species, but the scape and leaves are twice less; a native of the Cape of Good Hope. 33. A. flexuosa, with many-flowered fpathe, petals lanceolate, fbringent-petalated, waved-reflex at the apex, the lowest divaricated, the flaments and pistil ascending, shorter than the petals, and leaves linear, somewhat obtuse, concave, and pubescent dotted; or, according to Jacquin, with many-flowered fpathe, patent-petalated, the lowest divaricated, and linear, pointed leaves. The younger leaves are marked with white pulches; the more adult pointed, and when dry the points vanish; a native of the Cape of Good Hope. 34. A. radulara, with many-flowered fpathe, petals lanceolate, fbringent-petalated, flat, the lowest divaricated, the flaments and pistil ascending, of the length of the petals, with veins elliptico-ovate, preflled to the ground, and roughly pulished; a native of the Cape of Good Hope. 35. A. fl-botata, with many-flowered fpathe, corollas bell-shaped, shortly tubulose, segments, flat, reflex at the apex, flaments and pistil ascending, and the leaves elliptico-ovate, erect, and marginated; or, according to Jacquin, with many-flowered fpathe, corollas bell-shaped, equal, and reflex at the apex, sub ovate leaves, and frilated on the back; a native of the Cape of Good Hope. 36. A. eripa, with few-flowered fpathe, petals very patent, oblong, obtuse, and waved, flaments divaricated and shorter than the corolla, straight style, and leaves linear-siliform, and lax; or, according to Jacquin, with few-flowered fpathe, petals very patent and crisp, and leaves linear and very narrow. The flowers are very small; a native of the Cape of Good Hope. 37. A. f7ierria, with many-flowered fpathe, corollas patent and flat, a very short tube, flaments unequal, divaricated, shorter than the corolla, straight style, and leaves linear and erect; or, according to Jacquin, with many-flowered fpathe, very patent petals three, alternate, and barbated below the middle; a native of the Cape of Good Hope. 38. A. cirsium, crinum calpium of Pallas, with many-flowered fpathe, bell-shaped corollas, very short tube, flaments erect, longer than the corolla, and leaves lanceolated and waved; found near the Capfish Sea, in the beginning of Spring. 39. A. firalis, with fpathe two-leaved, few-flowered, peduncles filiform, very long, and leaves subulate. I. Heritier. This species was discovered by Bruguier in sandy grounds near the Cape of Good Hope. 40. A. cinnamomeum, with many-flowered fpathe, corollas sub-hexafluous, lanceolate, waved, flaments and pistil erect, shorter than the corolla. L'Heritier. This species is allied to Haranthus; was found by Bruguier at the Cape of Good Hope. 41. A. alta, with flowers declining, and leaves lanceolated. Forsk. Fl. Asg. Arab. p. 209. Martyn. Gymnus Linnaeus. Willdenow. 

Culture and Propagation. Most of these species have very beautiful flowers, and merit the attention of the botanist and florist. The first, or yellow natural A. is very hardy, and increases by offsets. The reason for transplanting these roots is from May to the end of July, when the leaves are decayed. They will grow in any kind of soil, but will thrive better in a friable, light, dry soil, and a warm situation, and will keep flowering from the beginning of September to the middle of November, provided that they escape severe frosts; and a succession of flowers will spring from the same root. The third, or Atamian lily, may be propagated by offsets from the bulbs, and will thrive in the open air on a dry soil, and in a warm situation. The 4th, or Jacobaea lily, is propagated by offsets, which are taken off every year; and the best time for shifting and parting the roots is August. They should be planted in middle-sized pots, and they will produce flowers two or three times in a year, and from March to September, when the roots are vigorous. The 10th, or Mexican lily, is less hardy, and must be placed in a warm flower, or the pots should be plunged into a hot-bed of Tanner's bark, and may be increased by offsets. It flowers usually in the beginning of Spring and makes a fine appearance in the flower. The 16th, or Belladonna lily, is cultivated by preparing a border near a wall, with a south-well aspect, about five feet wide; and for this purpose the earth should be removed to the depth of three feet, six inches of rotten dung laid at the bottom, and covered to the depth of about twenty inches, with light garden mould; the roots should then be placed at the distance of six inches every way, and covered over with light sandy earth, so as to bury the upper part of the roots about five or six inches; and in the Winter the border is to be covered with rotten tanners' bark to the depth of three inches, in order to guard against the frosts; and in severe frosts mats or straw should be laid over the leaves, to prevent their being killed. Thus managed, the roots will greatly increase, and produce flowers every year, which make a fine appearance during the month of October. The green leaves will abide till June, and then decay, after which the roots should be transplanted. The 17th species may be easily propagated by seeds. The 20th may be treated in the same manner as the Jacobea lily; will increase by offsets; and usually flowers in Winter, when the pots are placed in a moderate flower; and as there are few flowers in Winter in the open air, it is on this account the more valued. The 26th must be placed during Winter in a flower of moderate warmth, and left watered than the Jacobea lily. The 27th, or Guernsey lily, has been cultivated for many years in the gardens of Guernsey and Jersey, whence the roots are sent to most parts of Europe. The bulbs are commonly brought over in June and July, and they should then be planted in pots filled with fresh, light, sandy earth, mixed with a small quantity of very rotten dung, placed in a warm florarium.
a warm situation, and occasionally refreshed with water. About the middle of September the stronger roots will flewer their red-coloured flower-stem; and then the pots should be removed into a situation where they may have the fell benefit of the sun, and be sheltered from strong winds; but not placed under glass, or too near a wall, which would draw them up, and render them less beautiful. When the flowers begin to open, the pots should be put under shelter, so as to be secure from too much wet, but not kept too close or too warm. The flowers will continue in beauty for a month; and though without scent, their rich colour entices them to the field rank in the flowerery tribe. After the flowers are decayed, the leaves will be shed through the Winter, and they will be best sheltered in a common hot-bed frame. The roots should be transplanted every fourth or fifth year, toward the latter end of June, and planted into fresh earth. The offsets, planted in separate pots, will in three years time produce flowers; these roots will furnish a stock, which will supply flowering roots without the trouble and expence of obtaining them from Guernsey; and the roots preferred here will flower more strongly than those that are usually brought from thence. In order to preserve a large number of these roots without pots, a bed may be prepared in a well-sheltered part of the garden, by mixing a third part of fresh virgin-earth from a pasture ground with equal parts of sand, of rotten dung, and sifted lime rubbish. Of this, when it has been well incorporated, there should be made a bed about two feet thick, raised in dry ground four or five inches above the surface; and if the ground be moist eight or nine inches higher. In this bed the roots should be planted, about the beginning of July, about six or eight inches amidst each way; and in the Winter, when the frost sets in, covered with mats and straw; but in the Spring the covering may be removed, and during the Summer kept clear from weeds, and the earth occasionally stirred; and every year, when the leaves are decayed, a little fresh earth should be sifted over the beds, in order to encourage the roots. Here the roots may remain till they are strong enough to produce flowers, and then removed to pots, or suffered to remain in the same bed to flower. The roots of these plants often flower twice in the compass of three years; after which the same root will not flower again in several years, but only the offsets from it. The 22d, or Ceylon lily, is tender, and must be treated like the Mexican lily. It flowers usually in June and July, and sometimes the same root will flower again in Autumn; and if the pots are plunged into a bed of tanners' bark, the roots generally flower twice every year; but the flowers are not of long duration. The 24th may be increased by offsets from the roots, or by the bulbs which succeed the flowers; and it must be treated like the Cithara. The bell-time for transplanting the roots is about the beginning of August, when the leaves are quite decayed. Martyn's Miller.

AMARYLLIS. See Hypoestis Stellata.

AMARYLLIS Ciliaris. See Hemantthus Ciliaris.

AMARYLLIS diffusa. See Hemantthus tomentarius.

AMARYLLIS umbella. See Cyrtanthus obscurus.

AMARYNTHUS. In Ancient Geography, a small island of Euboea, according to Steph. Byz.; but, according to Strabo and Pausanias, a small place in the island, famous for a temple of Diana, where she was worshipped, and hence called Amarynthia.

AMAS, a mountain of Peloponnesus in Laconia, according to Pausanias, near Las and Gythium.

AMASENUS, La Toppia, a river of Italy. Also another river of Italy, which ran into the Liris.

AMASIA, in Biography, a professor of Greek and Latin at Bologna, and secretary to the senate, was born at Udine, in Friuli, in 1480. Paul III. invited him to Rome, made him preceptor to his grandson Alexander Farnese, and employed him on several embassies to the emperors of the empire and the king of Poland. He taught rhetoric at Bologna with an annual salary of 300 crowns, and at Rome, where he was much esteemed for his learning, and had a pension of 600 crowns a year. He translated Pausanias, that translation was corrected by Sylvius, and Xenophon's Expedition of Cyrus the Younger. He also wrote a volume of "Onstia", and "Scholas duas de Raymoni Inlinucendi." Two books, in which he shews that the Latin tongue is preferable to the Italian, were never printed. Huetius, "de claris Interpret," represents him as a great admirer of perspicuity and politeness of style, and says of him that he enlarged what was too concise, abridged what was too prolix, and elucidated obscure passages. He died about the year 1552, and left one son, named Pomplinius, who taught Greek at Bologna, and translated two fragments of the 6th book of Polybius. Gen. Dict.

AMASIA, in Entomology, a species of Papilio in the nymphales section. Wings indented, of a green colour, with a row of black spots along the margin of the posterior pair; under-side marked with ocellate spots. Found in Surinam. Fabricius.

AMASIA, a species of Phalara, of the Asina family. Wings varied with cinereous, and whitish, with a fulvous streak; lower-ones yellow, with two black bands, the outer one interrupted. Abbatt Inf. Georgica, by Dr. l. nich.

AMASIA, in Ancient Geography, a district or division of Anatolia Nothia, or Asia Minor, in Asiatic Turkey, bounded in the north by the Euxine Sea, on the east by Armenia, on the west by Anatolia Proper, and on the south by Caramania and Abduinia. The capital of this country is Amasia, called by the Turks Amos and Amazeh, which is an ancient town, situate among mountains, three miles distant from the river Iris, or Caulimack, and the residence of the governor of Cagherbag. It has been customary for the eldest son of the Grand Signior to reside here till he is called to the throne. The city was formerly the seat of the kings of Cappadocia, and some remains of its ancient magnificence are still existing. It gave birth to the famous geographer Strabo, and in Christian times it has been the see of an archbishop. Its wine and fruits are excellent. It is on leagues south of the Euxine Sea, and 200 miles south of Constatinople. N. lat. 40° 31'. E. long. 48°.

AMASIA, or AMASIA, in Ancient Geography, a town of Germany, supposed by some to be the present Embden, and by others Marburg. It was near this town that Druus vanquished the Bructeri.

AMASIS, in Biography and History, king of Egypt, was of plebeian extraction, and by his meritorious services obtained the confidence of Apries, his sovereign, whom he succeeded in the throne, B. C. 569, and soon after put to death. Upon his accession he was affianced in the exercise of his public duties, devoting his mornings to business, and his evenings to social amusement. Under his reign Egypt was singularly prosperous and happy, and is said to have contained 20,000 populous cities. For the preservation of order and the encouragement of industry, he enacted a law which required every person to inform the governor of the province once a year how he earned his living, and those who were not able to give a satisfactory account of themselves were punished with death. To the Greeks he was a great friend, inviting them into Egypt, and granting them places where they might erect altars and temples to their own
own deities; and it is said that he was visited by Solon; he also married a Greek woman. Such was the liberality of his disposition, that he contributed a thousand talents of alum to the Delphians for their relief when their temple was burnt, and he granted to the Greeks several valuable donations. In his own country he erected several magnificent buildings, and at a very great expense enriched the principal temples with gifts and ornaments. Amasis was the first person who subdued Cyprus, and extorted tribute from its inhabitants. The choice of his reign, however, was very different from its commencement and progress. Having by some means or other, probably by refusing to pay the same homage and tribute to Cambyses which he had been accustomed to render to Cyrus, incurred the displeasure of the Persian sovereign, Cambyses prepared to invade Egypt, and derived effeminate subservience from Phanes of Halicarnassus, who commanded the Greek auxiliaries in the pay of Amasis, and who, having been his ally and friend, joined Cambyses against him. Thus defeated by a prudent and valiant general, and by a powerful ally, and apprehending the formidable invasion of Cambyses, Amasis was rescued from the evils that threatened him, and that beclouded the closing scenes of his life, by death, B.C. 525, after a reign of 44 years. His dead body was embalmed, and deposited in a sepulchre which he had built for himself in the temple at Sais. The reign of his son and successor, Psammetichus, was short and calamitous; and the victorious Persians, after his defeat, capture, and death, took the body of his father Amasis from the tomb, mangled it in a shocking manner, and burnt it. Thus terminated the ancient splendour and liberty of Egypt. Herodotus. Diodorus Siculus. Un. Hist. vol. i. p. 314-323. Rollin's Anc. Hist. vol. i. p. 92-101.

AMASIS, in Ancient Geography, a species of Phalena, of the Bombyx family. Wings deflected; anterior pair whith, streaked with black, posterior pair yellow, with black spots. Abdomen black, belted with red. It is further described as having the head and thorax whitish, with black spots. The red or farrineous marks that encircle the abdomen are five in number, and the three black streaks on the anterior wings are angular. A native of Surinam. Fabr. Ent. Syll.

AMASIA, in Ancient Geography, a river of Germany, the present Ems.

AMASONIA, so called from Amason, a traveller into America, in Botany, a genus of the dorylaimis angiospermia class and order. Its characters are, that the calyx is a perianthium, one-leaved, bell-shaped, semi-spinuous, acute, equal, and permanent: the corolla is one-petalled, tubulous, longer than the calyx; border spinuous, sub-equal, spreading, and small; the stamens have four filaments at the upper side of the corolla, and longer than it, bending in at the end, two of them fleshy, the anthers oval and incumbent: the pistil has an ovate germ, style in the situation and form of the flaments, figmas two and thorp, no perianth. The seeds are ovate, one-celled nut, of the same length with the calyx. This agrees with the Tullgala of Athilet in every thing except the fruit, which, according to that, is a drupe, longer than the calyx one-celled, and containing two small hemispherical one-celled nuts. There is one species, viz. A. erecta. It is a native of Surinam, with an herbaceous stem, three feet high, round and fimbri: the leaves are alternate, petiolate, remote, elliptic-lanceolate, felterate, and scabrous: the flowers in a simple terminal raceme, a foot long, with about three flowers on a pedicle: the bracteas ovate, sessile, a little longer than the flowers, which are yellow, nodding, and grow all on one side of the flalk.

AMASEA, in Ancient Geography, a town of Peloponnesus, in Achaia.

AMASSI, a people of the Asiatic Sarmatians.

AMASTRA, a town of Sicily, the same with Ameltrata.

AMASTRIS, now Amstron, a town of Asia Minor, in Paphlagonia, upon a small island which joined the peninsula Selimus to the continent. It was built by Amastir, the wife of Lyrumneus, who gave it to his wife Arsinoe, and by her the government of it was entrusted to Hercules. Soon after it became very considerable, and put itself under the protection of Arisdarzaneus, the son of Mithridates. When the Romans carried their arms into Asia, Amastris was taken by Triarius, the lieutenant of Cotta. From the Romans it passed to the Greek emperors: it was afterwards taken by the Venetians: from them it became the possession of the Turks; and, having lost its commerce, it is now almost annihilated.

AMATA, in Entomology, a species of Papilio, in the section Danae Candeli, with round fulvous coloured wings, bordered with black on the upper side; beneath greenish; is found in India. Linn. Syll. Nat.

AMATARIA, a species of the Phalena, of the Goniota family, that inhabits Europe. The wings are angular, of a pale brown, slightly speckled, with an oblique darker-waved streak, and a straight purple line across the middle. It is produced from a green larva, with yellow rings, that feeds on the leaves of oaks. Limnæus. Don. Brit. Insects, tab. 33. fig. 2.

AMATEUR, in the Arts, is a foreign term introduced and now passing current amongst us, to denote a person understanding, and loving, or practicing, the polite arts of painting, sculpture, or architecture, without any regard to pecuniary advantage. Such have been found in the revivals of painting, &c. in most countries. Amateurs who practiced were never perhaps in greater number or of superior excellence than at present, and those who delight in and encourage the arts have been the means of raising them in this country to that eminence to which they are arrived. It is to be regretted, however, that the great works of former ages, collected by amateurs in this kingdom, are not so accessible to our professors as they are in foreign countries, which would tend to accelerate the progress of the arts, and that the encouragement given by these amateurs is in general upon too limited a scale.

It may occasion some surprise to the next generation, that Royal Patronage has not routed to emulation in this particular more of the noble amateurs who surrounded the throne, and induced them to encourage the greater works, as they do such as are of an interior nature; for this our reputation in historic art would be elevated so as to be equal, if not superior, to that of any of the neighbouring nations, and even to rival the fully celebrated pictures produced in the 14th and 15th centuries, and our sculptors might be equally esteemed with those of ancient Greece or Rome.

AMATEUR, in Music, is equal, in French, to the term Dilettante, Ital. implying a lover and cultivator of music, not professionally, but for his amusement—a gentleman performer. In the Encyclopedia Methodique we have a long article on the subject, by M. Guinguier, in which he divides les Amateurs into three classes, which he describes in the following candid and fair manner. "The first is composed of such as are born with delicate organs and much sensibility to the beauties

...
ties of music, and who, not having had leisure, inclination, or the means of cultivating their natural propensity, continue through life to cherish their passion for the art; eagerly attending all concerts and musical dramas; and, finally, by frequent and impartial parallels, dictated by nice and accurate discrimination, becoming, for times, better judges of composition and performance than trained professors, poetified neither of taste nor impartiality.

"The second class comprehends those who have had the means of developing, and confirming by study, the gifts of nature, and who have fulfilled their dispositions into talents. Of these the number is at present considerable. Music is become so interesting a part of a good education, and vocal and instrumental music have made so great a progress, and are so generally cultivated, that there are few private concerts in which more talents are not displayed by amateurs of both sexes than the most celebrated professors poifled in France 20 years ago. Concerts entirely composed of gentlemen and lady performers are not uncommon; but perfoms at all difficult are much disfigured if the principal parts at least are not guided by able profiirs.

"The third clafs is the most numerous and the most dis-tinguished, though they are less ambitious of shining than the second: it is composed of amateurs, who, not content with learning to read and execute music, have tried to penetrate into the secrets of the art, and enable themselves to account for the pleasure they receive, by analysing their sensations and studying the theory of music, to enable themselves to judge more accurately of the practice, and to unite intellectual pleasure with that of sense and the heart. Matters are fortunate who have such for judges, where their knowledge is incorporated with natural feeling and candour; and still more happy, a thousand times, the true amateur, who has neither the rage of decision, nor the arrogant pretentions of settled rank; who, knowing the arcana and refinements of the art, discovers and tells beauties unknown to vulgar hearers; who, preferring his primitive sensibility, enlightens it by meditation and study; and who finds himself impelled, both by judgment and feeling, to treat with regard the artist to whom he owes his pleasures, without a distinction of nation or party.

AMATH, or Ancient Geography, a town of Syria, called by the Greeks Emefa.—Alfo, a town of Phœnicia, near Gidara, the fame with Emefa.—Alfo, a town of Calis- fyrus, called by the Greeks Ephiphanias.

AMATHA, a country of Arabia.—Alfo, a town of Phœnicia, probably the fame that was founded by the 11th son of Canaan, called Chamati in the Book of Genesis, and by the Septuagint Amatha. According to Josephus, it was the capital of the Amathitans, and fame have supposed it to be the fame with Emefa.—Alfo, a place of Judea, in that part of it that was allotted to the half-tribe of Manasseth, on the coast of Jordan.

AMATHIEL, a people of Arabia Felix, according to Pliny.—Alfo, a people who inhabited the Land of Promise before the Israelites, and who occupied part of the tribe of Nephthali, towards Mount Liban. These people were vanquished by the Israelites, and retir'd into Phœnicia, where they built Amath, or Emath, on the banks of the river Orontes. According to Josephus, they fent forth a colony, who built the town of Amath, near the lake of Gennesareth.

AMATIFEA, in Entomology, a species of Papilio, in the Nymphulites fection, that inhabits South America. The wings are angulated, brown, with white spots; a red band, and undulated black line. Linna. Syd. Nat.

AMATHO. See AMATO.

AMATHUS, or AMATHOS, in Ancient Geography, Vol. II.

AMATUUS was a town of the southern part of the island of Cyprus, near Lyceus, between Curium and Citium to the east. It was founded by the Phœnicians, and owed its celebrity partly to the fertility of the adjacent country, and partly to the temple and worship of Venus in this place. Strangers, it is said, were facilitated on her altar. The goddess was displeased, and punished the inhabitants by changing the men into bulls, and by depopulating the women of their modely, so that they prostituted themselves without shame. Agreeably to this opinion, Ovid reports that the first constellations appeared in this town. The statue of Venus in this place was that of an hermaphrodite. The statue was allegorical; and probably the men sacrificed to her in female habits, and the women to those of males. There was another temple in this place, as we are informed by Pauly-Barnes, consecrated to Venus and Adonis. Amathus was afterwards called Limassol; but it is now utterly destroyed.

AMATHUS was also a town of Peloponnesus, in Laconia, according to Strabo.—Alfo, a river of Peloponnesus, in Messenia, called Panisu.—Alfo, a town of Palæline, beyond Jordan, on the coast of Mount Abaran, ruined by Alexander Jannaeus.

AMATUS, one of the epithets of the isle of Cyprus, and the inhabitants were called Amathysti, from Amathus above mentioned.

AMATI, ANTON and Hieronymo, in Biography, two brothers, celebrated instrument makers in Cremona, renowned in 1662. Nicolo Amati, the son of Geronimo, was living in 1682. All these were such admirable fabricators of violins, as to render valuable every instrument that was supposed to come from Cremona. See Stradusius and Stein.}

AMATILLAN, in Geography, a town of Mexico, in the province of Guatimala; 10 miles S.E. of Guatimala. N.lat. 14° 20'. W. long. 90° 20'.

AMATIQUE, a sea-port town, at the mouth of Guanaceu river, which discharges itself into the Amatique gulf, or gulf of Honduras, in the province of Vera Paz, in Mexico. The inhabitants are chiefly logwood-cutters, and on the south of the gulf is a tract of land, called Amatique land. The gulf is formed by the peninsula of Cape Three Points, and that which lies between it and Dulce gulf, and between these it runs far into the land. N. lat. 15° 23'. W. long. 89'.

AMATISSA, Amsis, in Ancient Geography, a small river of Gaul, which runs from the S. E. to the N. E. eastward of Ambacian, and discharges itself into the Loire.

AMATIUE, in Geography, a river of North America, in New Spain, which discharges itself into the Pacific Ocean, upon the confines of the province of Guatamala.

AMATIKINAK ISLAND is, with Ulak, the largest of the third group of islands between Asia and America.

AMATO, a town of Naples, in the province of Calabria Ultra, on a river of the same name, 7 miles S.E. of Nicaloro. AMATO, or AMATHOS, anciently LAMETUS, a river of Naples, which spreads itself over a large flat, in 50 different channels, and would overflow a great extent of country if its discharges were not restrained by high cliffs on each side of its bed. Its waters are of a muddy white colour. It discharges itself into the Ion, three miles south of St. Eufemia, on the west coast of Calabria Ultra.

AMATORIUS, in Anatomy, an appellation given to those muscles of the eye, which give them a cast sideways, and assist in that particular look, by some called ogling. When the abducens and the recti act together, they give to the eye this oblique motion.

AMATORIUS, in Ornithology, a species of the Parus genus, of a deep blue slate colour, with a longitudinal spot in the
the middle of the wings, half rufous, half yellow. — It is the
mating amorous of the Puffin, and _aureus tupaia_ (pars amo-
rous) of Latham. The length is five inches and a quarter, biil
two thirds of an inch, black on the back, tip orange.

This bird inhabits the northern parts of Asia, and is re-
markable for the affection each fox shows the other. When
paird in cages it exercises are feebly interrupted; a cir-
cumstance that has impoed the emphatic names of ama-
tarius, amorous, and amorous upon this species, to differ-
guith it from others of the genus genus.

AMATRICE, in Geography, a small town of Naples, in
Abruzzo, with the title of a principality.

AMATTA, or Brasilia, a town of South America, in
the country of Brazil, and government of Fernambuco.

AMATTA, or BAIA, or KANG, ISLAND, an island in the Southern Pacific
Ocean, discovered by Captain Cook, in 1774, about 11 or 12 leagues distant from
AMAMOON, N. N. W. It is about five leagues in
circuit, considerably elevated, and probably has a volcano;
It is inhabited, but not very fertile. Between this and an-
other island, called Oghao, is a fale channel, about two miles
bread, without any founlings.

AMAUROSIS, in Surgery, a privation or obscurity of
light, from _amazone_, more commonly named _Gutta Sil-
nera_. This disorder is either complete, when total blind-
ness exists, or incomplete, when vision is not perfectly
destroyed. It is distinguished from the _glaucoma_ or
_Cataract_, in as much as the latter is a disease of the crys-
talline lens, whereas the former is generally seated in the
optic nerve. Amaurus may be produced by various causes,
and admits of different modes of treatment; but the confi-
deration of these particulars is referred to the article gutter
fera. See _Amblyopia_ and _Disopia._

AMAXIA, in Ancient Geography, a town of Asia Minor,
in Cilicia Trachea or Cilicia Montana.

AMAXITUS, a borough of Asia Minor, in the Troas,
and territory of the Alexandrians. In this place there was
a temple of Apollo, in which the priest Chryses, mentioned
by Homer, is reputed to have sacrificed.

AMAXOBII, a people who according to Ptolomy, in-
habitcd the interior parts of Scythia, in Europe. Their
name, derived from _amos_ or _amos_, a chariot, refers to the practice
which prevailed amongst these people and other Tartarian
nations, of placing their tents on carriages for their more
caly removal from one place to another. See _Hammoxobi._

AMAYA, in Geography, a town of Spain, at the foot of
a rocky mountain, in the county of Leon, four leagues
from Aquilar do Campo.

AMAIN, in Scripture History, the eighth king of
Judah, was the son of Jona, and succeeded his father in
his 25th year, A.M. 3165, B. C. 830. He adhered to the
worship of the true God, but not without a mixture of
idolatry; and therefore, he is said (2 Chron. xxx. 2) to
have done "that which was right in the sight of the Lord,
but not with a perfect heart." We are further informed
(Ch. xxx. 3, 4.) that, after his accession to the throne, he
put to death the murderers of his father, and in conformity
to the humane requisition of the Mosaic law, (Deut. xxiv.
16,) he preferred their children alive. With a large army,
formed of his own subjects, and other hired troops from
Israel, he marched against the Edomites, who had revolted
from Judah, in the reign of Joram, about 54 years before;
but having disinfected the Israelite auxiliaries, he led forth
his own people to battle, and defeated the enemy in the
valley of Salt, with great slaughter. The auxiliaries on
their return ravaged the country, killed 3000 men, and
carried off a great booty, as a compensation for the advantage
which they expected to have derived from their expedition
against Edom. Amaziah, after his victory, took home
the gods of the children of Seir, and paid them divine
honours. Preferring on his success, and imagining himself
to be invincible, he sent a hostile challenge to Josiah, king
of Israel, expressed by the words (2 Chron. xxx. 17.) "Come,
let us look one another in the face." Josiah, by the fable of
the cedar and thistle, endeavoured to diffuse him from his
hostile purpose; but he peremptorily, and the adverse armies met
at Bethlehem, where that of Amaziah was routed, and he him-"self taken prisoner. Josiah led the captive king with him
to Jerusalem; and having made a breach in the wall, he
entered the city, plundered the temple and royal palace,
and then returned to Samaria. After this disastrous event,
the reign of Amaziah was prolonged 15 or 16 years; but a
conspiracy having been formed against him at Jerusalem, he
fled to Lachish, where his enemies overtook and effaced him,
A.M. 3165. B. C. 810. 2 Kings, ch. xiv. 2 Chron.

AMAZON, in a General Seife, denotes a bold, courageous
woman, capable of daring and hardy achievements. See
Amazons infra.

AMAZON, or the river of the Amazons, called also
Maranon, in Geography, a river of South America, is
one of the largest rivers in the world. Its source is in Peru,
in a lake near Guanero, about 30 leagues from Lima, where
the Maranon rises; and at the head of the river Napo, near
Quito; its first division in Peru is from south to north; it
afterwards runs a course from west to east, of about 3000
miles, across South America, and receives near 200 other
rivers, many of which have a course of 5 or 600 leagues,
and some of them not inferior to the Danube or the Nile.
These rivers run down with amazing impetuousity from the
eastern declivity of the Andes, and uniting in a spacious
plain, form this immense river. The chief of them, from
the south and south-west, proceeding from the mouth west-
ward, are Arauaya, Paratina, Madeira, Eurus, Ulyat,
Ucayali and Ucagiri rivers. From the north and north-west,
advancing from its mouth, are Parma, Negro, Yupuru, Iba
and Napo, which last rises near the town of Archidano,
about 150 miles eastward of Quito. The Amazon is inter-
spersed with a great number of islands, which are too often
overflowed to admit of culture. It falls into the Atlantic
Ocean, almost under the equator, by several channels, and
its breadth at its mouth is 150 miles, and at the distance of
1500 miles from hence it is 30 or 40 fathoms deep. In the
rainy season it overflows its banks, washing and fertilizing
the adjacent country. M. de la Condamine, who made a
voyage down this river in 1743, found its descent in a straight
course of about 1860 miles, to be about 1020 English feet,
or 65 inches in a mile. The tides are perceptible at 600
miles from its mouth, but at an elevation only of 50 feet.

Bevides Orellana, who made this voyage from motives of
ambition, and de la Condamine, who was promoted to it from
a love of science, Madame Godin des Odonais, undertook it
in 1769, from conjugal affection. The narrative of the
hardships which she suffered, of the dangers to which she
was exposed, and of the difficulties which befell her, is one of
the most singular and affecting stories in any language, and
exhibits in her conduct a striking picture of the fortitude
which distinguishes the one sex, blended with the sensibility
and tenderness peculiar to the other. Lettre de M. Godin
eA M A
À M A
à M. de la Condamine.

AMAZONA, in Ornithology, a species of Alcedo, first
described by Dr. Latham, in his Syn. Av. Sup. p. 110,
under the name of Amazonian Kingsfisher. It inhabits
Cayenne, and is about thirteen inches in length. The colour
above is glossy green, beneath white, paling backwards in
a ring
ring to the nape; the sides are variegated with green; the wings and tail spotted with white. These particulars constitute the specific character: it may be further added, that the bill is three inches long, narrow, straight, and black; the under mandible yellow at the base; the thighs mottled with green, and the breast clouded with the same; tail feathers green, spotted on each side of the web with white, except the two middle feathers which are paler than the rest; legs black.

AZAMON, a species of Embiriza, described by Linnaeus and Gmelin. The general color is brown, crown of the head fulvous, vent whitish. It inhabits Surinam, and is about the size of the titmouse. The underside of the wings white at the base.—Buffon calls this L'Amazon, tom. iv. p. 354, and Latham gives it the English name of Amazon's Dunting.

AMAZONE, in Sculpture, a very fine antique flute, in Parian marble. It was about two hundred years at the Villa Mathe, upon Mount Coelius, at Rome; from whence it was removed to the museum of the Vatican, by pope Clement XIV.; and is now in the gallery of antiques at Paris. There is also a beautiful statue of a queen of the Amazons at Wilton; represented in a warlike action; being on one knee; as under a horse, defending herself in battle. Her shield is in the form of a half moon; behind the lower part of which, the sculptor has executed a horse's foot; in order to illustrate the attitude. This statue was executed by the celebrated Cleomenes.

AMAZONIA, in Geography, a large country of South America, 1400 miles long, and 900 miles broad, is situated between the equator and 26° S. lat., and bounded on the north by Terra Firma and Guiana, on the east by the Atlantic Ocean and Brazil, on the south by Paraguary, and on the west by Peru. This country was first discovered by Francisco Orellana, about the year 1541, who, in a bark, manned with 50 soldiers, was borne down by the current of the river Napo into the channel of the Maragnon; and who, after making frequent descents on both sides of the river, sometimes feizing by force of arms the provisions of the fierce savages, feasted on its banks, and sometimes procuring a supply offood by a friendly intercourse with more gentle tribes, reached the ocean. This bold and magnanimous adventurer pretended to have discovered along the banks of this river, nations so rich, that the roofs of their temples were covered with plates of gold; and he described a republic of women so warlike and powerful, as to have extended their dominions over a considerable tract of the fertile plains which he had visited. From this community of warlike women, who, with arms in their hands, opposed his passage, he called the country Amazonia, or the land of the Amazons, and he gave the name of Amazon to the river, which had formerly been denominated Maragnon.

The Spaniards have made several attempts to plant this country, but always met with so many difficulties and obstructers, as to render their designs abortive. The Portuguese have some small settlements on that part of the coast which lies between Cape North and the mouth of the river Amazon; but these excepted, the natives are in the sole possession of the whole country. The air in this country is cooler than might be expected, considering its situation in the middle of the torrid zone; which is owing partly to the heavy rains, which cause the inundations of the rivers for one half of the year, and partly to the cloudiness of the weather, so that the sun is obscured, during the greatest part of his day above the horizon. The fair season is about the time of the foliages, and the wet or rainy season is about the equinoxes. The soil of Amazonia is very fertile, and produces corn, grain, and all kinds of tropical fruits; besides a variety of timber, as cedar, Brazil-wood, oak, ebony, iron-wood, logwood, and other dying woods; and also cocoa, tobacco, sugar canes, cotton, cassava root, potatoes, yams, farfariila, guams, rafials, ballians of various sorts, pine apples, guavas, bananas, &c. The forests abound with wild honey, and also with tigers, wild boars, buffaloes, deer, parrots, and game of various kinds. The rivers and lakes afford an ample supply of fish, sea-cows, and turtles; but the alligators and water-serpents render fishing a dangerous employment. The trees, fields, and plants, are verdant throughout the year. The natives are of good stature, with agreeable features, long black hair and a copper-coloured complexion, and are very different from the natives of Africa, in the same latitude, on the opposite side of the Atlantic. Condamine says, that they have a taste for the imitative arts, especially sculpture and painting, and that they frequently excel in mechanical proficiencies. They spin and weave cotton cloth. Their houses are built with wood and clay, and thatched with reeds. Their arms, in general, are darts and javelins, bows and arrows, with targets of cane or fish skins. The several nations, on both sides of the river Amazon, which are very numerous, are governed by chiefs or caciques; for it is observable, that the monarchical form of government has prevailed almost universally, in both ancient and modern times, in a rude and uncultivated state of society. The regalia, by which the chiefs are distinguished, are a crown of parrot's feathers, a chain of tiger's teeth or claws, which hang round the waist, and a wooden sword. They are all idolaters, and worship the images of their ancient heroes; and in their various expeditions they carry their gods along with them.

As to the Amazonian race, if it ever exiled otherwise than in the imagination of the original adventurer Orellana, or in the exaggerated reports of travellers and voyagers, it is now wholly extinct; and probably the notion was at first fuggled by the activity and courage which the females of this country exerted, in the defence of their privileges, against the encroachments of foreigners.

AMAZONS, in Geography and History, denote an ancient nation of warlike women, who founded an empire in Asia Minor, upon the river Themadon, along the coasts of the Black Sea; and who are said to have formed a state out of which men were excluded. What commerce they had with that sex, was only with strangers, whom, after occasional intercourse at stated times, they put to death; hence, as Herodotus informs us, they have been called Eorputa, or murderers of their husbands. They also killed all their male children, or, as some authors say, broke their legs, or disjointed their knees, and thus rendered them incurably lame, by luxations, as Dionysius Siculus, Hippocrates, and Galen affirm, that they might be the more easily reduced to a state of dependence and slavery. Moreover, they nursed their females, and trained them up to war; and that they might ufe their arms more readily, and be more fit for the combat, they cut off, or feared with a plate of hot braff, their right breasts, apprehending that there would be otherwise some impediment in the use of the bow. Hippocrates and Galen allow that this fact was reported; but they allege, that this operation was performed, not on account of any impediment in the use of the bow, but to render the right arm stronger by an addition of aliments, as that which would have gone to the breast would be thus restrained to the arm. In reference to the excision of their breasts, Pentheus, one of
of their queens, is represented by Virgil, Æn. lib. i. v. 492.

“ Aurea subracenis excrse cingula mameae.”

From this last circumstance it is, that they are supposed to take their name, e. c. from the privative *a* and *μαμα*; *mamma*, breach.

Others have suggested, that the amputation performed on the breasts of the females was invented by the Greek etymologists, in order to explain the name of the nation. Others again have conjectured, that the name was derived from the Circassian word *mazwa*, the *moun*, which is said to have been a favourite deity among the mountaineers of Caucasus, in the vicinity of which the Amazons were settled. Dr. Bryant (not in the foot) traces the etymology of the appellative to *ezm*, the *fiat*, which was the national object of worship.

Some have maintained, that the description of the Amazons, given by the ancient writers, is purely allegorical; the amputation of one of the breasts signifying, that the female only was nourished by the mothers; and the killing of the boys denoting, that they were committed to the care of strangers.

It is, however, a point that has been controverted, even among the ancient writers, as well as the moderns, whether such a nation as the Amazons are described to be, have ever existed. Strabo, Pausanias, and others, absolutely deny it; whilst, on the contrary, Herodotus, Panuon, Dio-

Herodotus, in his history of the Scythians (lib. iv. c. 110. p. 330—332. ed. Walfeling.), informs us, that the Greeks, who had obtained a signal victory over the Amazons, near the river Thermodon, were carrying off the females that had escaped the slaughter in ships into their own country. While they were at the Amazons carried against them, and killed all the men whom they had on board; but being unacquainted with the art of navigation, even with the use of the rudder, sails, and oars, they were driven by the wind and tide to the precipices of the Palus Moesitis, in the territories of the free Scythians. Here they went inshore, and marching up into the country, they seized the first horses they found, and began to plunder the inhabitants. The Scythians unacquainted with their language, sex, and dress, took them at first to be youths; but after a skirmish or two, in which some of them were taken prisoners, they found that they were women. Accordingly all hostilities ceased, and they formed connections with them as their wives. But when the Scythians invited these women to accompany them to their own country, they declined accepting the invitation; alleging, that they had been always used to draw the bow, dart a javelin, mount a horse, and such warlike exercises, to which they supposed the Scythian women were altogether unaccustomed, and that they could not consent to exchange their military mode of living for a life of ease and indolence. They therefore exhorited their husbands, if they still retained the same conjugal affection for them, to visit their parents and friends, and to return with the several portions assigned them. They complied with the advice; and upon their return, were informed by their wives, that since they had deprived them of their parents, and committed several depredations in that country, they thought it much fitter to fix their habitation on the other side of the Tanais. This scheme was approved and executed. After three days march to the east of that river, and three more northward from the lake Moesitis, they arrived and settled in the country of Sarmatia, where they continued, says Herodotus, to his time. Hence, continues

the historian, the wives of the Sarmatians pursue their ancient mode of life, hunting on horseback either alone, or in the company of their husbands, marching with their armies, and wearing the same dress with the men. The Sarmatians used the Scythian language, corrupted by the Amazons, who had never learned to speak it correctly. Their marriages were attended with this peculiar circumstance, that no virgin was allowed to marry till she had killed an enemy in the field, and therefore some of them were old before they married, according to the requisition of the law.

From Diodorus Siculus (lib. ii. c. 45. p. 156—158. ed. Walfeling.), we learn, that there was formerly a nation who dwelt near the river Thermodon, in which women governed and conducted all their military expeditions. Among these, one excelled all the rest in strength and valor. By her an army was assembled, and trained up in military discipline, &c. as to subdue some of the neighboring nations. Her fame increasing with her success, she styled herself the daughter of Mars, and ordered the men to spin wool, and to perform the domestic services of the women. She promulgated laws, which required the women to engage in warlike exercises, and the men to remain at home in an inoffensive condition, and to be employed in the manual offices. The male children that were born were debilitated in their legs and arms, so as to be unfit for war; and the females had their right breasts amputated, so that they might be no impediment to them in fighting; and hence, says the historian, this nation obtained the name of Amazons. The queen, distinguished by her military skill, built at the mouth of the Thermodon a large city, called Themispeira, and adorned it with a famous palace. In her warlike expeditions she maintained strict discipline and order; and thus reduced to subjection all the neighboring nations, as far as the river Tanais. Having finished these exploits, she closed her life in the field like a hero, and fell in a battle, in which she had displayed singular courage. She was succeeded by her daughter, who equalized her value of her mother, and in some respects surpassed her. She caressed the young women to be trained to hunting in early life, and also to military exercises. She instituted feasts and sacrifices to Mars and Diana, which were the deities of her race; she built temple to the above-mentioned deities, and gained the love of her subjects by her mild and gentle government. She afterwards reduced a great part of Asia, and extended her conquests as far as Syria. The succeeding queens of the same race acquired renown by their government, and greatly enlarged the dominion of the Amazonian nation. The fame of the Amazons continued for several ages, till at length Hippolyta was vanquished and captured by Heracles, the son of Jupiter and Alcmene; and by degrees the Amazonian name became totally extinct. The last queen of the Amazon was Penthesilea, who assisted the Trojans, after the death of Hector, and was slain by Achilles. So signal and extraordinary were the character and exploits of this queen, and others of the Amazonian women, that Diodorus acknowledges, that in later ages, the relations of them have been regarded as fabulous.

Diodorus elsewhere (viz. lib. iii. p. 220.) mentions another race of Amazons, much more ancient than those of Pontus, in the vicinity of Thermodon. These inhabited the western parts of Libya; they were under the government of men; and as long as they continued single, they performed the duty of soldiers in the field; and after a stipulated period they associated with the men, and bore children;
but the magistracy and all public offices were retained by the females, and the men were employed in domestic offices, and were altogether subject to their wives, who would not allow them any participation of authority in the state, or any concern in military affairs. Their females had their breasts feared, that they might not be any hindrance to them as they grew up, and engaged in martial exercises. One of the principal queens of this nation was Myrina, who is supposed to have lived in the time of Orus, the son of Isis, and to have conquered Africa and the greater part of Asia, but was at last slain in Thrace.

Justin (ex Trog. lib. ii. cap. 4.) traces the origin of the Amazonian republic in Scythia. About the time of the first eruptions of the Scythians into Asia, in the reign of Scophoris, king of Egypt, two princes of the royal blood, named Hylinos and Scoloplytus, were compelled by an adverse faction to retire into Cappadocia, and there married their wives and families. By the assistance of the youths they brought with them, they obtained possession of Thermopole, on the river Thermodon, whence they made incursions into the adjacent nations for several years, till at last they were all treacherously murdered. Their wives, partly from revenge and partly from a dread of slavery, put themselves under the conduct of some of their chief heroines, and prepared for a bloody war with the murderers. In order to give full scope to their fury, they renounced all future marriages, and destroyed those of their husbands, who had escaped the slaughter; and then proceeded with such vigour and such success against their enemies, as totally to overthrow them, and to compel them to sue for peace. One of their first regulations was, that they should yearly have a month's intercourse with each other, for the propagation of their species; after which they went to their respective homes in their own way, deprived them of their right breasts, that they might be no obstruction to them in drawing their bow; and as for the boys, they either killed them, as Justin says, or disabled them for the future. And the mothers would bequeath to them their fathers, according to Herodotus and others. These surprising exploits were achieved under the government and conduct of two queens, Lympato and Marphesia, who pretended to be the daughters of Mars; and who, having extended their conquests into Asia, built cities there. The former of these females was left behind, with an army to secure their conquest, and the latter, on her return home, with her spoil, was surprized and cut off, with the rest of her female warriors, by some bands of barbarians. After a succession of female queens, Pentheilea is said to have come to Troy for the alliance of Priamus, as we have already mentioned. This queen, it is added, was the inventor of the battle-axe, and was killed by Pyrius, the son of Achilles. Another of their queens, named Tomyris, had a bloody encounter with Cyrus, king of Persia; and the famous queen Thaliestris had an amorous intercourse with Alexander the Great. Under this last queen it is said, that the Amazonian kingdom and race were ultimately destroyed.

Quintus Curtius (De Rebus Gestis, A. M. lib. vi. c. 5. tom. i. p. 400. ed. Snakenburg.) has given a particular account of this intercourse between Thaliestris and Alexander. He says, that the nation of the Amazons were settled upon the borders of Hyrcania, and that they inhabited the plains of Themiscyra, near the river Themodo. Thaliestris, their queen, who governed the whole country between Mount Caucasus and the river Phasis, being desirous of seeing Alexander, sent messengers to request an interview with him. Having obtained permission to visit him, the advanced with 300 of her female warriors; and when she approached his presence, she leaped from her horse, with two javelins in her right hand. The apparel of the Amazons, says Curtius, does not cover the whole body; but the left side is naked to the breast, and the skirts of their garments, which are tied up in a knot, reach below the knees. Their left breast is preferred, that they may suckle their female offspring; but the right breast is feared, that they may the more easily bend the bow, and shoot their arrows. Thaliestris, after observing Alexander for some time with an undaunted countenance, was disappointed, as his personal appearance did not correspond to the ideas she had previously formed of him, from the report of his signal exploits. When the king offered her, whether she had any thing to desire of him, Thaliestris without hesitation replied, that she wished to have children by him, and that she was worthy of the honour of giving heirs to his dominions. The female she would refuse for herself, and the male should be delivered to him. When Alexander interrogated her, whether she would accompany him in his wars, she declined, alleging, that she had left her kingdom without a guardian. Alexander, after renewed solicitations on her part, and a delay of 13 days, complied with her wishes; and Thaliestris returned to her kingdom.

Plutarch, in his life of Pompey, (Oper. tom. i. p. 678.) says, that the Amazons inhabit those parts of Mount Caucasus, that lie towards the Hyrcanian sea, that they are separated from the Albanians by the Getaic and Leges, and that they annually, for two months, accompany these people, and cohabit with them near the river Thermodon. They then retire to their own habitations, and live apart for the rest of the year. In his life of Thecus, (Oper. tom. i. p. 13.) Plutarch, after reciting some particulars relating to the history of the Amazons, acknowledges, that the accounts of them which had been preferred were partly fabulous and partly true. The arms of the Amazons were bows and arrows, javelins, and a kind of battle-axe, denominated the axe of the Amazons, the invention of which is ascribed by the elder Pliny to their queen, Pentheilea. On medals, the bull of the Amazons is usually armed with a small two-edged axe, called lironnis or fiduris, borne on the shoulder, and a buckler, in the form of a half moon, by the Latins called pelta, on the left arm. Hence Ovid's description of Ex Pont.

"Non tibia Amazonia est pro me fumenda securis,
Aut excisa lavi pelta gerenda manu."

And Virgil, speaking of the queen Pentheilea in Æneid.
lib. i. v. 490, says,

"Ductit Amazonidum lunas agmina peltis."

Besides the Amazons of Africa, which formed the most considerable body of these female warriors, and those of Mount Caucasus, near Colchis and Albania, and likewise near the Pelus Moeitis, of whom we have already given an account, Polyanes speaks of Amazons in India, who are also mentioned by Nonnus. They likewise occur in Æthiopia. They at one time, says Dr. Bryant, possessed all Ionia; and there were traditions of their being at Samos, and in Italy, where they had a town in Messapia, towards the lower part of the country, called Amazonia. Even the Athenians and Boeotians were of the same family; hence it is said, that Cadmus had an Amazonian wife, when he went to Thebes, and that her name was Sphinx. The Ciehians and Iberians, as well as the Cimmerians and Moeites, according to this learned writer, were Amazons; and so were all the Ionians, and the Atlantians of Mauritania. Philostratus,
in his Herodicus, mentions Amazonians on the Danube, and in Lucius Florus we read of German Amazons.

Among the ancient writers, who consider the peculiar history of the Amazons as fabulous, we have already mentioned Pseudo-Plutarchus, who was complimented for his distinguishing understanding, by the appellation "of περίδρατος," and who gave it no credit. Strabo also, although born at Amathus, in Cappadocia, an Amazonian region, could obtain no evidence to connote the history. He says, (lib. vii. tom. n. p. 576.) that many legendary stories have a mixture of truth, and most accounts admit of some variance. But the history of the Amazons is uniformly the same: the whole a monstrous and absurd detail, without the least appearance of probability. For who can be persuaded, that a community of women, either as an army, or a city, or a state, could subsist without men? and not only feebly, but make expeditions into other countries, and gain the sovereignty over kingdoms; not merely over the Ionians and those who were in their neighborhood, but pass the seas and carry their arms into Europe; to accede to this were to suppose, that nature varied from her fixed principles; and that in those days women were men, and men women. It may be added, that if such a people really existed, some traces of them would have been found, either in Iberia and Albania; or in the country upon the Thermodon, where they are supposed chiefly to have resided. But Procopius (De Bell. Goth. lib. iv. c. 3. p. 570.) says, that there was no mark, no tradition to be observed concerning them.

Among the moderns, who have maintained the existence of Amazons in ancient times, we may mention M. Petit, a French physician, who published a Latin dissertation, in 1685, in order to establish the fact. This dissertation contains abundance of curious inquiries, relating to their habit, their arms, the cities built by them, &c. Dr. Bryant (Analytical Ancient Mythology, vol. iii. p. 457, &c.) explodes the account of the existence of such a nation as fabulous; and he says, that the whole of this strange history has been owing to a wrong etymology of the appellation Amazon. The Greeks, who were fond of deducing every thing from their own language, imagined, that by the term Amazon was signified a perfon without a breast. This perfon they inferred to be a female; and, in consequence of it, as the Amazons were a powerful people, they formed a notion, that they were a community of women, who subsisted by themselves, and every absurdity, with which this history is attended, took its rise from the above-fated misconception. They did not consider, that there were many nations of the Amazons widely separated from each other; nor did they know, that they themselves were of Amazonian race. Dr. Bryant is of opinion, that the Amazons were in general Cuthite colonies from Egypt and Syria; and as they worshipped the sun, they were called Azoines, Amazones, and Alazones, which are names of the fame import and bear reference to the national object of worship. To this purpose Potamanius (lib. iii. p. 274.) mentions Apollo Amazonus, who was worshipped in Laconia. The most noted of them inhabited the region of Pontus, near the river Thermodon; and they were also called Chalybes, and Aylbes, and occupied part both of Cappadocia and Armenia, being situated near Sinope, and extending towards Celycis. They are mentioned by Homer (IIiad. lib. v. v. 826.) among the allies of the Trojans. One of the principal cities of these Chalybes, besides Sinope, was Amilia, or as Pliny expresses it more justly (lib. vi. p. 303.) Amazon, and he mentions a mountain near it of the same name. These people had different titles in the countries where they settled, and often in the same region; and therefore their history has been confused. They were called not only Amazons, but Syri, Aflvii, Chaldae, Mauri and Chalybes, and were still further diversified. They were the fame as the Ionians, and in consequence of it, they are said to have founded the chief and most ancient cities in Ionia, and its neighborhood. Accordingly the coin of the cities in Asia Minor, and particularly of those in Phrygia, Ionia, and Mityla, has often an Amazon for its device. The Amazons, according to the learned writer now cited, were Arctis, and one of their chief cities was called Sarcopolis, who came from Egypt, and worshipped the sun, and Selene, the chief deity of the country, from whence they came. They are told by Herodotus of Egypt, not as he conceives from killing their husbands, because, according to their history, they had not any, but from their worship; and this name was given to their priests. It signifies a priest of the sun, or Orus; and their priests used to sacrifice strangers, who accidentally came upon their coasts, and hence they were styled, "Apeironian," murderers. The Egyptians, it is alleged, admitted the firlam among their military instruments of music, and made use of it when they went to war. The same practice prevailed among the Amazons, who worshipped the Isis of Egypt, and made use of her fulam, when they engaged in battle. The Amazons of Colchis and Armenia were not far removed from the Minyae, near Mount Ararat, and were of the same family. They were Arctis, as we may learn from the people of Pontic Theba, and followed the rites of the ark, under the name of Meen, Baris, and Iona. Hence it is, that they have been represented with solar shields; not that they were of a solar shape, but the lunette was a device taken from their worship. It was the national emblem, which was painted upon their shields; whereby it is said of them, "xticks bellantur Amazonum amis." The Amazonian shield approached nearly to the shape of a leaf, as did also the shields of the Gothic nations; and upon these shields they had more lunettes than one; and from them the cullum was transmitted to the Turks and other Tartar nations. One of the most extraordinary circumstances in the history of the Amazons is their invasion of Attica. They are represented as women, who came from the river Thermodon, in revenge for the insult offered them by Hercules, who had plundered their country. Their attack is described as violent; and the conflict for a long time doubtful. At last, having lost many of their companions, they were obliged to retreat and entirely to leave the country. Of this invasion the Athenians pretended to have had many evidences; they exhibited the tombs of the Amazons, who fell in the contest; the place of engagement was called Amazonium; and near it was an ancient pillar, said to be erected by this people. But the history abounds with inconsistencies, though Plutarch (ubi praefat) seems to credit it, and addsuces several circumstances, with a view of establishing its certainty. Such a people, however, as the Amazons, had certainly been in Attica; the Athenians, as well as the Boeotians, were in a great measure defended from them. The rites to which Plutarch refers, in proof of hostility between the Amazonians and Athenians, afford no conclusive argument to this purpose; because they consisted originally in offerings made to the deity, from whom the Amazons derived their name. He was called Azoion, and Amazon, and was the same as Ares, the sun. They worshipped both Ares and Harmonia, changed by the Greeks to a feminine Harmonia; and in consequence of this worship, the Amazons were said to be the offspring of those deities. Hence it is, that the wife of Cadmus was said to be Harmonia; for the Cadimans were undoubtedly
undoubtedly Amazonians. What became of these female warriors after their repulse from Attica, the Grecians have not historically ascertained. Some say that they retreated into Magna Graecia, and founded the city Cletis. Icocrates (in Panegyr. p. 95.) acknowledges, that none of them returned into their own country; and Lydias (Fusc. Orat.) says, that their nation was wholly ruined by this expedition, that they lost their territories, and that they were no more heard of. Upon which Piatarch (ubi supra) observes, that we must not wonder, when transcriptions are of such antiquity, if history should prove contradictory and obscure.

The Amazonians are said to have always fought on horseback, (Arifopha. Lyd. hist. v. 680.) and yet the use of cavalry was not known in Greece, till long after this era; for, according to Homer, the Asiatic nations at the siege of Troy were equally unacquainted with this advantage. As for the tombs, which have been adduced as evidence of this invasion, they were probably high altars, raised in ancient days. The whole of this history relates to old rites and customs; and not to any warlike expedition. The pillar, called Amazonium, indicates, that the Amazonians might have been once in this country, and that they probably erected it; but this was the object to which they paid their adoration, as they lived in an age, when statues were not known. Such a one the Argonauts are said to have found in the temple of Arez, when they landed upon the coast of Pontus, and made their offerings to the deity, thus described by Apollonius, (Argonaut. lib. ii. v. 174.) according to the English translation of the original—

“Now to the grove of Arez they repair, And while the victims bleed, they take their stand Around the glowing altar, full in front Of a fair temple. Here of ebon hue Rifes in air a lofty antique Stone. Before it all of Amazonian name Bow low, and make their vows.”

That these supposed tombs were altars, is also inferred from their situation in the middle of the city, and in many different places. Every circumstance of this invasion is attended, says our author, with some absurdity. It is owing, we are told, to the injustice of Hercules, who stole the girdle of Hippolyte, and attacked the nation, of which she was queen, so as quite to ruin it. The Amazonians, thus defeated and weakened, and not able to withstand their next neighbours (see Diod. Sic. lib. iv. p. 229. tom. i. p. 262.) determined to wage war with the Greeks, and particularly with Thessaly. They began their march, but instead of proceeding directly to Greece, they purposed a contrary route, passing north-east in order to arrive at the south-west, and ranging round the whole Euxine sea, by Mount Caucasus and Colchis, to the Cimmerian Bosphorus, and traversing many hills and rivers, they at last arrived at Athens, pitched their camp in the precincts of the city, close to the Acropolis, fought a severe battle, retired, and not being able to return home, were dispersed and annihilated. And yet so far is this female history from terminating, the Amazonaz are introduced again by the poets, Homer, Virgil, &c. at the siege of Troy, and are to be met with in the wars of Cyrus. Some ages after, in the time of Alexander, an interview is said to have passed, as we have already related, in which the queen of the Amazonas makes proposals to that monarch about sharing, for a night or two, his bed. And even in the time of Pompey the Great, during the Mithridatic war, they are supposed to exit; for after a victory gained by that general, the Roman soldiers are said to have found many boots and buckles, which Dion Caius (in Bell. Mithrid.) thinks were undoubtedly Amazonian.

Such, says Bryant, after a long and learned detail of various particulars, of which the above is merely a concise abstract, was the credulity of the ancients about one of the most improbable stories that was ever feigned; and this learned writer concludes upon the whole, “that the Amazonians were a manifold people, and denominatd from their warlike people, and denominatd from their bond.” They were some of the Titanic race, who settled in Colchis, Ionia, Hellas, and upon the Atlantic in Mauritania; they were also to be found in other parts, and their family characteristics may in all places be traced. They were the same as the Cadians; and the structures which bore their names were not erected to them, but were the work of their own hands.”

Ludpoulos, says Plato (Mencken, vol. ii. p. 299.), led the Amazonians, when they invaded Attica; and he is supposed to have been the principal person who introduced the rites and mysteries, which were observed by the Athenians. His sons were the pritites, who officiated at the temple of Ceres in Eleusis. From all circumstances it is concluded, “that what has been represented as a warlike expedition, was merely the settling of a colony, and those who had the conduct of it were Amazonians, who had been represented as women. And so far is probable, that there were women among them, who officiated at the religious ceremonies which were instituted.”—Among barbarous nations women have often combated by the side of their husbands; but it is almost impossible, says Mr. Gibbon, (Hist. vol. xi. p. 48.) that a society of Amazons should ever have fubstituted either in the old or new world.

Later geographers and travellers speak of Mingrelian and Georgian Amazonas; Amazons in America, in Monomotapa, in the Philippine islands, in Denmark, &c. John de los Santos, a Portuguese capuchin, in his description of Ethiopia, mentions a race of Amazonas in Africa; and Eneas Sylvius gives us a very precise account of a republic of real Amazonas in Bohemia, which lasted nine years, founded by the valour of a young woman, called Valaska. That there have been females of singular talents and very extraordinary firmness and resolution, in all ages and in all nations, no one can dispute; and if we compare the warlike genius of the Scythian women in general, and more particularly that of the Sarmatians, in whose neighbourhood the Amazonas are said to have lived, with the occasion which is reported to have given birth to their strange kind of government, namely, the treacherous murder of their husbands, and their being in danger of becoming a prey to their murderers, and in a strange country; we may incline to give some credit to the brave and masculine method which they took to fave themselves from slavery, and to revenge the slaughter of their husbands. The Scythian, as well as the Celtic women, were anciently held in great esteem and veneration, for their skill in divination above the men, infomuch that the latter are upbraided by ancient authors for suffering women to assist at and direct their councils and to have even presided in their courts of judicature, and other assemblies; in which their judgment was reckoned decisive, because they were supposed to be divinely inspired. Being, therefore, inured to council, execution, and warlike exploits, exasperated by the barbarous brutality of their husbands, and rendered, as it were, desperate by the prospect of impending slavery, we need not wonder, that they should adopt effectual means of inflicting vengeance, and of defending themselves; and, with this view, that they should
A M A

should select one or two of the strongest and most valiant to lead them in an offensive war against their enemies, and that they should carry it on with courage and constancy, and of course with such animating success. And if their warlike temper, their government, customs, valour, conduct, and achievements, have been exaggerated beyond credibility, it may be alleged, that this has been done with respect to other nations, governments, and conquerors, which have attracted general attention, and of which it would be absurd to reject as altogether fabulous on that account. The fame allowance should be made in both cases: and this is much more reasonable than to suppose that the various historians, who have given an account of them, have been guilty of forgery or of too great credibility.

The true history of the ancients, and even of the modern Amazons, has, without doubt, been blended with much fable, with many marvellous and improbable, not to say altogether incredible relations: but the testimony upon which it is transmitted to us deferves regard, and it would manifest a degree of scepticism, which, applied to other cases, would be not only unwarrantable, but dangerous and pernicious, altogether to defraud it. The empire of the Amazons was certainly of a different kind from that which properly belongs to the female sex. "The empire of the woman," says Rouf- feau, "is an empire of lofiefs, of address, of complacency. Her commands are careless; her menaces are tears." "The character of the ancient Amazons," says Dr. Johnson, "is rather terrible than lovely. The hand could not be very delicate that was only employed in drawing the bow, and bradilising the battle-ax. Their power was maintained by cruelty: their courage was deformed by ferocity; and their example only shews, that men and women live side by side." The Amazons were applied, in a figurative sense, to bees, because among these insects the females alone are commonly supposed to bear sway.

Aridotle, treating of the breeding of bees, approves himself ignorant of their sex; and therefore, willing to keep up the prerogative of the males, he calls their governor βασιλεύς, rex, in which he has been followed by the generality of authors.

An ingenious writer of our own country, takes the liberty to strain the ordinary signification of the word rex, and in such places translates it queen, this being an Amazo- nian, or female kingdom.

Mr. Warder has published a work under the title of the True Amazons, or the Commonwealth of Bees.

A M B

AMAZONIAN, something relating to, or resembling Amazons.

AMAZONIAN, or female kingdom, is particularly used for a feminine one, or that wherein the females alone bear rule.

AMAZONIAS, in Antiquity, denotes a drefs formed in imitation of the Amazons.

Marcia, the famous concubine of the emperor Commodus, had this appellation Amazonian, because she charmed him most in a habit of this kind.—Hence also that prince himself engaged in combat; or at least intended to engage, in the amphitheatre, in an Amazonian habit; and of all titles the Amazonus was one of those he most delighted in. In honour either of the gallant, or his mitres, the month of January was also denominated Amazonus. Some also apply Amazonian habit to the hunting drees worn by many ladies among us.

AMAZONIUS is an appellation given to a kind of pafl, or troche, anciently used against risings of the stom- ach, and vomitings. The ingredients of which it is com- posed, are smallage, anise-seed, wormwood, myrrh, pepper, cyperus, opium, and cinnamon.

AMAZONIUS, in Entomology, a small species of Scel- rarius, found in Surinam. It is telficous, with two black marks on the thorax, and a brown callus on the exterior margin of the wing-cases. Linn. SYL. Nat.

AMB, in Botany, a name by which some authors have called the magna Indica, or Max-go-tree, called also amabilis, and ambe.

AMBAE, in Topography, denotes a kind of jurisdic- tion, or territory, the possession whereof has the administra- tion of justice, both in alto and bajo; or of what is called in the Scots law a power of pit and gallows, i.e. a power of drowning and hanging.

In some ancient writers ambacht is particularly used for the jurisdiction, government, or chief magistracy of a city. The word is very ancient, though used originally in a sense somewhat different. Eumius calls a mercenary, or slave hired for money, ambachtis; and Caesar (De Bell. Gallic. vi. 14.) gives the same appellation to a kind of dependents among the Gauls, who, without being free, were attached to the service of great lords.

AMBAGES, in Rhetoric. See Circumlocution.

AMBAIBA, the name of a tree in Brasil, called by the Indians, ipica. Ray's Hill Plant. See CECOPIA.

AMBATINGA, the name of a tree, whose leaves are so rough that they may be used to polish hard wood. Ray's Hill Plant.

AMBAPAYA. See CARICA.

AMBARVALIA, in the Materia Medica, a name by which some have called mulk feed.

AMBARES, in Geography, a town of France, in the department of the Gironde, and chief place of a canton, in the district of Bourdeaux, five miles north-east of Bour- deaux.

AMBARVALIA, in Antiquity, a feast, or ceremony, among the Romans, celebrated annually, in honour of the goddess Ceres, in order to procure a happy harvest.

At these feasts, they sacrificed a bull, a fow, and a sheep; which, before the sacrifice, were led in procession thrice around the fields; whence the feast is supposed to have taken its name: from the Greek, to walk, or to run. But though others write it ambargaha, and ambarlka, and deduce it from ambir urken, to run round the city.

From the beasts offered in sacrifice, the ceremony was also called SUBEPAIALIA.

Some will have the ambarevalia to have been held twice a year: the first time towards the end of January, or, as others think, in April; and the second time in July, or as Rufinus imagines, in August; at the time when the harvest was ripe, maturis frugibus. Which opinion is the more probable, in that Ovid, who, in his Fasti, describes the feasts of the first six months of the year, from January to June inclusive, says nothing of the ambarvalia.

The sacrifice offered on this occasion was hence called ambarevalia facrum, and bowla ambarevalia.

The ambarevalia were of two kinds, public and pri- vate.

The private were those solemnized by the masters of families, accompanied with their children and servants, in the villages and farms out of Rome. They walked three times round the grounds, every one being crowned with leaves of oak, and singing hymns in honour of Ceres. After the procession, they went to sacrifice.

The...
The ambrosial carmen was a prayer preferred on this occasion; whereof we have the formula preferred in Cato.

"De re rustica." c. 142.

The public ambivalia were those celebrated in the boundaries of the city; and in which the twelve fractae arvalia officiated pontifically, walking at the head of a procession of the citizens, who had lands and vineyards at Rome.

The prayer, or formula, here used, as it is given by Feetus, in loco: "peffalus," was avertis sermum, marvin, tabem, nembulam, impetiginem, pofetatum. Virgil has described the ambivalia in the first book of his Georgics, v. 343, &c.

Some make a quinquennial as well as an annual ambivalia, the one performed every five years, the other once a year.

The priests who chiefly officiated at this solemnity, were called fractae arvalia.

AMBÆRVALIS flos, in Botany, a name given, by some authors, to the pratylo, or milkwort.

AMBASSADOR. See Embassador.

AMB AZAC, in Geography, a town of France, in the department of the Upper Vienne, and chief place of a canton, in the district of Limoges, 10 miles north-east of Limoges. The place contains 2793, and the canton 7543, inhabitants; the territory includes 101423 kilometres, and 7 communes.

AMBE, in Anatomy, a superficial jetting out of a bone.

AMBR, or AMB, in Surgery, an instrument employed for the reduction of a dislocated shoulder, especially when the head of the os brachii rete in the axilla. Various improvements have been made in the construction of the ambit since Hipocrates's time; but its use is rarely wanted, as a dexterous surgeon can generally replace the shoulder bone by more simple means. See Dislocations.

AMB EEZES, AMBOIZES, or AMBOIZES, in Geography, an island of Africa, in the Atlantic Ocean, near the coast of Benin. N. lat. 4° 15'. E. long. 10° 50'.

AMBELL, in Botany. See Nymphæa.

AMBELÀNIA. See Willughbeia.

AMBER, Hæmatos, Gr.—Eclètrum, fuccinum, Lat.—Succin, caratæ, ambre jaune, Fr.—Bernsteïn, ayzfeïn, gis Frimfeïn, woofch-amber, Ger.—Glefinum, ancient German, according to Play.—Börnfein, ræf, gis, Sweed.—Bernfeen, Dan.—Succina, ambra gialla, Ital.—Enyékö, Hung.—Junctar, Ruff.—Sæal, Egypt.—Bitumen fuccinum, Werner.

The colour of amber is generally some shade of yellow, as wine yellow, wax yellow, honey yellow, hyacinth red, yellowish white; it is also found occasionally green or brown. It occurs amorphous, and in detached pieces. It shining, or little shining, with a waxen lustre. Its fracture is conchoidal, and when broken it flies into indeterminate not particularly sharp fragments. It is commonly transparent, more rarely semi-transparent or translucent. It is brittle, and its sp. grav. varies from 1.055 to 1.1.

By rubbing, it readily becomes electric. When applied to a lighted candle it takes fire,放s considerably, but does not run into drops, and exhales a white smoke of a pungent penetrating odour.

It is sometimes confounded with copal and honey-stone, but may be distinguished from each without much difficulty. Copal is softer than amber, and when inflated melts into drops. Honey-stone is much weaker in its electrical properties, and when laid on a hot coal becomes white.

The only proper mines of this substance that are as yet known, are in Prussia, near the sea coast. They are worked in the usual way by shafts and galleries to the depth of about a hundred feet. The amber is imbedded in a stratum of fossil or carbonated wood, and occurs in nodules from a few grains in weight, to three or even five pounds: specimens also are occasionally met with consisting of the wood penetrated by veins of amber. The upper and under strata are sand and sandstone. Amber is also found along the whole shore of the German sea, and on the south coast of the Baltic. The projecting eastern shore of England too, and the coast at the entrance of the channel from the north affords many specimens. Rounded nodules have been occasionally met with in the beds of gravel near London. It is not, however, exclusively, though principally a northern product: the coast of the Adriatic sea and the Sicilian shores furnish a small quantity, and occasionally pieces have been dug up near Sidone in Provence.

The property of amber, when rubbed, to attract hair, straw, and other light substances, was first observed by Thales one of the Greek philosophers, who on this account attributed a certain kind of life to it; and from the Greek name of amber, electron, is derived the modern term electricity, being the science of an important class of facts, the first known of which was the attracting power of amber. On this account, and also from the real beauty of the substance, it was held in high estimation among the Romans, who made it into bracelets, necklaces, and other articles of female ornament. Those pieces that contained insects, &c., then as at present were the most valued, and we meet with many allusions in the Roman poets to this circumstance; thus Martial says,

"Cum Phantomea formica vagatur in umbra,
Impleuit tenuem fuccina gutta fremam."

They also held the idle opinion, which till lately was generally received among us, that a collar of amber tied round an infant's neck, would enable it to cut its teeth with safety.

When amber was more in request than it is now, as an ornament, and an article of Materia Medica, great attention was paid to it by the Prussian miners, and many experiments were made by the artificers to remove its defects, and improve its beauty. The coarser and smallest pieces were called flandlein or feahlug, those that were a little larger and cleaner had the name of sirinis or varnish amber, and the larger and better pieces were called, from the particular works to which they were applicable. Of the transparent ambers the most valuable was the bright golden yellow, of the opaque varieties the most esteemed were the flaky, or fealy. Methods were devised, especially by Gottlieb Samuelson of Brellin, of making opaque amber transparent, and of tinging it red, blue, violet, green, and white. Most of these secrets have perished with the inventors, but the two following were the usual methods of rendering amber transparent. First, by surrounding it with sand in an iron pot, and cementing it with a gentle heat for forty hours, some small pieces being occasionally taken out to judge of the progress of the operation. Secondly, which was the most usual method, by digesting and boiling the amber about twenty hours with rapsseed oil, when it became harder and clearer; linseed oil has not the desired effect. Amber, however, thus clarified, is always harder and less electric than in its natural state. The value of amber depending on its size, numerous attempts, but constantly without success, were made to fold together or melt down several small pieces, so as to convert them into one large piece.

The origin of amber has exercised the imagination of poets and chemists from the days of ancient Greece to the present; nor is it worth while to enter into an examination of any of these opinions, except those which are held by modern inquirers. Amber is by some considered as a proper mineral bitumen analogous to petroleum, perhaps originating

Vol. II.
AMBER, liquid, and balsam of. See BALSAM.
AMBER, in Geography, a river of Germany, in Bavaria, which rises two leagues from Tachsen, and joins the Her, near Landshut.

AMBER BY, is situated on the peninsula of Yucatan, in the bay of Honduras, and lies north of Ascension Bay.

AMBERED, or myrrh scented, is a seed that is somewhat like the millet, of a bitterish taste, and brought dry to us from Martinico and Egypt. The Egyptians use it internally, as a cordial, to fortify the heart, stomach, and head, and provoke flux.—It gives a grateful scent to the breath, after eating; but it is not proper for those who are inclined to vapours.

AMBER TREE, in Botany. See ANTHOSTERIUM.
AMBER BOL, See CERATOPTERUM.
AMBERG, in Geography, a city of Germany, in the circle of Bavaria, and Upper Palatinate, 32 miles north of Ratibon, and 32 east of Nuremberg. It is the capital of the duchy and residence of the elector's governor; it is seated on the river Vils, which runs through it, is well fortified, and is the largest place in the Upper Palatinate. It has an electoral palace, a cathedral, and a college of Jesuits. It is said to have been railed from a village to a town in 1297; and was taken by the Imperialists in 1703. On a mountain near it stands the pilgrimage-church, called Mary's-help, and in its vicinity is an iron-mine, which furnishes it with a considerable trade. N. lat. 49° 25'. E. long. 11° 55'.

AMBERH, a mountain of Sweden, in East Gothland, about two Swedish miles from Wadstena. Its height is so considerable, that from the summit of it a person may see 50 churches. Upon this mountain is a flat stone, under which one of the ancient kings is said to be interred. Antimony is found in this mountain near the Wetter-lake.

AMBERGER, Christopher, in Biography, an eminent painter of portrait and history, was born at Nuremberg, and refuted at Augsburg, where he died in 1552. He was a disciple of Hans Holbein, whom he imitated so exactly, that his pictures were sometimes taken for those of his master. He principally excelled in portraits, and acquired great reputation by his history of Joseph, in 12 pictures, and by the portrait of Charles V, for which the emperor paid him three times as much as he expected, besides a present of a rich chain of gold and a medal. Amberger was also an engraver, though his works are not specified. Pilking-ton and Scott.

AMBERGREASE KEV, in Geography, an island in Hanover Bay, on the east side of the peninsula of Yucatan, in the bay of Honduras. It runs along the mouth of the bay, and is seventy miles in length, but very narrow.

AMBERGRIS, from amber and grist, AMBER CAST, Anthospermum, in Natural History, a light, indissoluble, greyish, variegated substance, fluffy and fragrant with a gentle heat, and used as a perfum and a cardiel. Its colour is grey, brown, or yellowish brown, spotted with black; its hardness and consistence are those of wax; its specific gravity from 1.02 to 0.926, so that it swells both in water and refined spirit; its fracture is earthy and ragged, and exhibits bones of fish or beaks of birds; it has scarcely any particular taste, and unles heated, or much handled, very little smell; but in such circumstances its odour is very fragrant, resembling that of burning amber, and to most persons agreeable. It softens between the fingers, melts in a small degree of heat like wax; in a stronger inflames, and if pure, leaves no residue; cold water has no effect upon it, but to boiling water it communicates its smell, and being partially melted, falls to pieces. It is scarcely affected by spirit of wine, which dissolves it sparingly with the assistance
Ambergris.

affinice of a boiling heat, or fat oils; but by the essental, as that of turpentine, it is disdolved almost entirely, and by ether most perfectly. It has been found soluble in caustic fixed alkalis, still more so in oil of vitriol, and precipitable by water. Distilled it yields an aqueous phlegm, a brown-coloured acedulous spirit, a deeper coloured oil, at length, a thick balsam, and as some say, a volatile salt, leaving a black smelling residuum. The spirit, oil, balsam, and salt, are similar to those obtained from amber; but the oil is of a more grateful smell. Its chemical products resemble those of bitumen, among which some have ranked it.

It is found on the sea-coasts, floating on the surface of the sea, adhering to rocks, or thrown out upon the shores, in several countries; as along the southern and eastern parts of Africa, Madagascar, the Maldives, some parts of the Mediterranean, and in the West Indies, about the islands of Bermuda and Jamaica, and the Bahama islands, also on the coasts of Carolina, and the western coasts of Ireland. It is likewise said to be found on the coasts of Norfolk, and the islands of Orkney. It has also been found in the stomachs of whales, of various sizes and shapes. We have several instances in authors of large pieces of this matter, one of the largest that has been known in Europe was bought by the Dutch East India Company, of the king of Tidore, for 12,000 dollars, in 1649, and lent to Amsterdam in 1684, and kept in its horn for some years. It was almost round; measured two feet in diameter, and weighed a hundred and eighty-two pounds. The great duke of Tuscany offered fifty thousand crowns for it. We are told, however, that one was taken up, near the cape of Good Hope, which weighed three hundred pounds; and another, if we may credit the relation, fifteen thousand pounds. Phil. Trans. No 263. No 232.

There has been a great variety of opinions among naturalists with regard to the origin and production of this substance: to rehearse them all, would make a volume. Klobius recites eighteen, to which we could add half as many more. The principal may be reduced to these which follow.

1. Some take it for the excrement of a bird, called in the Madagascan language afchibibuch, and by the Maldives Ana-cangriugafusi; which being melted by the heat of the sun, and washed off the shore by the waves, they say, is swallowed up by whales, who return it back in the condition we find it.

2. Others, and particularly many of the orientals, imagine it springs out of the bottom of the sea, as napheba does out of some fountains. — They add, that the only springs of it are in the sea of Ormus, between the Arabian and Persian Gulfs. Eridisi, who is of this opinion, in the fifth climate of his Geography, mentions pieces of ambergris on those coasts, weighing a full quintal. Paludanus and Linchotten also speak of it as a sort of bitumen, gradually working up from the bottom of the sea and hardening in the sun.

3. Others take it for a sea-mushroom, torn up from the bottom by the violence of tempests; it being observed, that ambergris is never found but during the south-well monsoons, after storms.

4. Others assert, that it is a vegetable production, issuing out of the root of a tree, whose roots always shoo toward the sea, and discharge themselves into the sea. This account we have in the Philosophical Transactions, from one of the Dutch factors at Batavia; and the same is confirmed by Mr. Boyle. Others take it for a kind of wax or gum, which diffils from trees, and drops into the sea, when it congeals, and becomes ambergris. Mr. Magellan mentions an undoubtedly vegetable ambergris, gathered from the trees by M. Asplet, and examined by Roulle. Cronstett's Mineralogy, p. 458.

5. Others suppose it a spungious kind of earth, which the working of the sea washes off the rocks, where, being lighter than water, it floats.

6. Others maintain, that ambergris is made from the honey-combs which fall into the sea from the rocks, where the bees have formed their cells. This opinion seems to have something of experience on its side; several persons having seen pieces that were half ambergris, and half plain honey-comb; and others, again, having found large pieces of ambergris, in the middle of which, when broken, they discovered both honey-comb and honey. But the error of this hypothesis may be detected by chemical experiments; as honey likewise admits of a solution in aqueous methyl, but refists the most highly rectified spirit of wine.

7. Others are of opinion, that it is a bituminous matter; that it is at first liquid, and runs into the sea: and that it is there condensed, and reduced into a mass. To this purpose Mr. Neumann, chemist to the king of Prussia, after an ample recital of all the different opinions advanced by others, gives us his own; which is, that ambergris is a bitumen, issuing out of the earth into the sea; at first of a viscous consistence, but hardening, by its mixture with some liquid napheba, into the form wherein we find it. Phil. Trans. No 453. No 454. Neumann's Traité is of the same opinion.

This opinion has been considered as the best founded, and strengthened by this circumstance, that ambergris is found in the greatest quantities in the sea, about the island of Madagascar, where the subterraneous parts are supposed to be implicated with bituminous matter.

The pieces are frequently seen composed of divers fragments, laid one over another, with stones and other bodies included therein, and the fragments are sometimes full of little shells, which seem a species of concha anatifera; whence it may be conjectured, that the ambergris has originally been in a fluid state, or, at least, that it has been dissolved and in that state has formed itself afresh, and enveloped such bodies as happened to be in its way.

Neumann gives the chemical characters of this bitumen, and its analysis, by distillation. He distinguishes the sopplications of ambergris, and observes, that it is totally soluble in oils and vinous spirits, and that it yields the same product, as amber. See the particulars and the proofs of this in Neumann's Works, p. 239. &seq.

S. Dr. Boylston, and Mr. Dudley, in the Philosophical Transactions, assert, that the ambergris is a true, animal concrete, formed in balls, in the body of the male spermaceti whale, and lodged in a large oval bag, over the testicles, at the root of the penis. Phil. Trans. No 385. and 387. vol. xxii.

It is certain the whale-catchers have divers times found ambergris in their spermaceti whales, and that chiefly in the large and older sort; and it is from the information of Mr. Atkins, and other whale catchers, that Mr. Dudley chiefly drew his account. But it is added, that it is not one spermaceti whale in an hundred that is found to have ambergris, and that it is found only in the male. To this account it has been objected, that ambergris is frequently found in females as well as in males; and that the backs of the lepia, which are so constantly found in ambergris taken out of the whale, could not have been absorbed from the intestines by the faeces or lymphatics, and collected with the ambergris in the above mentioned bag.

9. Others have approached nearer to the truth, who represent ambergris as the excrement of a cetaceous fish; because it has been sometimes found in the intestines, and sometimes
Ambergris.

Sometimes in the faces themselves of such animals. Notwithstanding this suggestion, it was long thought, that ambergris, after having been swallowed, and in some mode or other changed in the stomach and bowels of the whale, from which it was obtained, was afterwards found among its excrements. But the real animal origin of ambergris has been satisfactorily ascertained by Dr. Swediar, in the Philosophical Transactions, vol. lxxii. art. 15.

In the accounts given of ambergris by various writers we have been told, that claws and beaks of birds, feathers of birds, parts of vegetables, shells of fish, and bones of fish, have been found blended with it. But Dr. Swediar, after examining many fragments of this substance, found no such materials mixed with it; and though he allows that such may occasionally occur, yet the black spots which he discovered in the various pieces, found in the sea or in the whale, that were examined by him, appeared upon accurate scrutiny, to be the beaks of the Sepia olivacea; and he apprehends, that these beaks were mistaken for claws or beaks of birds, or for shells. From the existence of these beaks in ambergris he infers, that this substance in its original must have been of a very soft or liquid nature. In order to investigate the true nature of this substance, he premised, that ambergris has been found upon the sea or sea-coast, and also in the bowels of whales; but he observes, that it has never been determined, whether the ambergris found in these different situations be of the same kind, and possessed of the same or similar properties. He alsolugается as a subject of previous inquiry, whether ambergris is found in all sorts of whales, or only in a particular species; whether it is constantly to be met with in those animals; and if this be the case, in what part of their body it is to be found. In discussing these subjects of examination, Dr. Swediar consulted the most intelligent persons concerned in the spermacei whale fishery, or in procuring and selling ambergris; and from their information it appeared, that this substance is sometimes found in the belly of the whale, but only in that species which is called the spermacei whale, and which seems from its description and delineation to be the phystcher macrocephalus of Linnaeus. The New England fishermen, having been long apprised that ambergris is to be found in the spermacei whale, conclude, that whales of this species frequent these seas where ambergris is found. They naturally expect to find ambergris in the spermacei whales which they catch; but they are generally disappointed. Whenever they took a spermacei whale, they observed, that it constantly not only vomits whatever it has on its stomach, but also generally discharges its feces at the same time; and if this circumstance occurs, they seldom find ambergris in its belly. But whenever they discover a spermacei whale, male or female, which vomits torpidly and sickly, they commonly find ambergris, as the whale in this state vomits its feces upon being hooked. They likewise generally find it in the dead spermacei whales, which they find floating upon the sea. Besides, those whales which yield ambergris have a morbid protrusion, or a kind of gathering, in the lower part of the belly, in which, when it is opened, they find ambergris. The whales, that yield this substance, are not only torpid and sick, but always leaner than others; and hence it is inferred, that a larger collection of ambergris in the belly of the whale is a source of disease, and probably sometimes the cause of its death. As soon as a whale, that is torpid, sick, or emaciated, or one that does not die before it is hooked, is caught, they immediately cut the protrusion already mentioned, if there be any, or rip open its bowels from the orifice of the anus, and find the ambergris, sometimes in one lump, sometimes in different lumps, generally from three to 12 and more inches in diameter, and from one to 20 or 30 lbs. in weight, at the distance of two, but mostly of about five or seven feet from the anus, and never higher up in the intestinal canal; which, according to their description, is probably the inteninum cecum, lithestro mistaken for a peculiar bag formed by nature for the secretion and collection of this singular substance. That this is the intestinal canal is certain, because they constantly begin their incision at the anus, and find the cavity every where filled with the faces of the whale, which, from their colour and smell, it is impossible for them to mistake. The ambergris found in the intestinal canal is not so hard as that which is found on the sea or sea-coast, but soon hardens in the air. When first taken out, it has nearly the same colour, and the same unpleasant smell, though not so strong, as that of the mere liquid dung of the whale; but, on exposing it to the air, it gradually not only becomes greyish, and its surface covered with a greyish dull like old chocolate, but it also loses its disagreeable smell, and when kept for any long time, acquires the peculiar odour which is so agreeable to most people. In considering whether there be any material difference between ambergris found on the sea or sea-coast, and that found in the bowels or among the dung of the whale, Dr. Swediar refutes the opinion, that ambergris found in whales is of an inferior quality, and therefore of much less value in piece. Ambergris, he observes, is valued on account of its purity, lightness, compactness, colour and smell. On the different coals pieces of ambergris are found of a very inferior quality; and those found in whales are of a superior quality; and different pieces in the same whale, are, according to the above specified test, of greater or less value. When ambergris is first taken out of the intestines of the whale, it has nearly the same smell with that of the liquid excrements, and also the same blackish colour; and it is found of different degrees of compactness, but never so liquid as the natural faces of that animal. After being taken out and kept in the air, all ambergris becomes harder and whiter, and gradually loses its smell, and assumes such an agreeable one, as that in general has which is found swimming on the sea, and therefore the goodness of ambergris seems rather to depend on its age. By being accumulated after a certain length of time in the intestinal canal, it seems even then to become of a white colour, and less heavy, and to acquire its agreeable smell. The only reason why ambergris floating on the sea generally polishes the above mentioned qualities in a superior degree is, because it is commonly older, and has been longer exposed to the air.

It is more frequently found in males than in females; those pieces that are found in females are generally smaller, and those in males seem constantly to be larger and of a better quality; and therefore the high price in proportion to the size is not merely imaginary on account of its rarity, but in some respect well-founded, because such large pieces appear to be of greater age, and possess the above mentioned qualities in a higher degree of perfection than smaller pieces.

It is known, continues our author, that the Sepia olivacea, a little fish, is the confant and natural food of the spermacei whale, or phystcher macrocephalus. Of this the fishermen are so well convinced, that whenever they discover any recent relics of it swimming on the sea, they conclude that a whale of this kind is or has been in that part. Besides, the spermacei whale, on being hooked, generally vomits up some remains of the Sepia. Hence it is easy to account for the many beaks, or pieces of beak, of the Sepia that
that are found in ambergris. The beak of the fepia is a black horny substance, and therefore paffes undigested through the lomachs into the intestinal canal, where it is mixed with the feces; after which it is either evacuated with them, or, if these latter be preternaturally retained, form concretions with them, which render the animal sick and torpid, and produce an obligation, that terminates either in an abscess of the abdomen, or becomes fatal to the animal; whence, in both cases, on the bursting of its belly, that hardened substance, called ambergris, is found swimming on the sea, or thrown upon the coast.

From the circumstances above related, and from having observed the above-mentioned piece of fepia in all fragments of ambergris of any size, Dr. Swediar concludes with great probability, that all ambergris is generated in the bowels of the phyfeter macocephalus, or fpermaceti whale, and then mixed with the beaks of the fepia octopoda, which is the principal food of that whale. He therefore defines ambergris to be the preternaturally hardened dung or feces of the phyfeter macocephalus, mixed with some indigetible relics of its food.

Many of the preceding observations, with regard to the production of ambergris, have been confirmed by the examination of Alexander Champion, Esq. a principal merchant concerned in the Southern whale fishery, and of the captain of a ship, employed by him, in the said fishery. This ship brought home about 360 ounces of ambergris, which the captain took out of the body of a female fpermaceti whale, on the coast of Guinea. This was observed to proceed from the fundament of this fhip, and whilst they were cutting the blubber, a piece of it was seen to swim on the surface of the sea. Some of this subfufu was observed in the fame paffage, and the reit was contained in a small bag, a little between the paffage, and communicating with it. The whale seemed fickle, and very old. The fpermaceti whale, it was observed, feeds almost wholly on a fih called fquids; and when the whale is dying, throws up a quantity of fuid, something white, and sometines in pieces. The bills of the fuid were found, fome in the inside, and fome on the outside of the ambergris, flicking to it. The fpermaceti whale, when fruck, voids her excrement; and if she does not, it is confecrated that she has ambergris in her. It was concluded by the intelligent captain, who communicated this information to the council of trade and foreign plantations, that ambergris is most likely to be found in a tucky fis; and that it is the cause or the effect of some disorder. The whole quantity of ambergris found in the whale, of which the above account was given, was 362 ounces Troy, and it was sold for £96. 9s. 4d. per ounce; half of it having been bought for exportation to Turkey, Germany, and France, and the other half having been purchased by the druggists in town. Phil. Trans. for 1791. vol. xxxi. art. 2.

Ambergris is of confiderable ufe among perfumers, who melt it over a gentle fire, and make extracts, effences, and tinctures of it. It is one of the moft agreeable perfumes. The leaff apt to diforder weak conftitutions, or fuch as are liable to be offended by fubflances of that fpecies. It would be of more ufe in phyfick too, were not its smell apt to occa- fion vapours.

There is a preparation, however, recommended by Hoffman, which is said not to be attended with thefe ill confe- quences. The preparation is made in the following manner: Let the spirit of rofe, perfectly dephlegmated, be, not only once, but twice, at leaft, drawn off from the falt of tartar, which is burnt, or calcined, in a vehement fire. By this means there is produced a spirit, which, by its penetrating quality, enters into the inmost fubflance of the ambergris, and so separates and resolves its oleous conftituents. This, we are affured, will not excite conceptions and agitation in a weak body, as does the common preparation of ambergris, which is made with a mixture of muff or cift. Hoffman. Observ. Phyf. Chem. lib. i. c. 18.

Ambergris enters into the composition of many cordial, fudorific, and alexiteriac waters. But its chief virtue consists in its antitiphomodic and fudorific qualities, familiar to those of mufk and califor, and its power of relieving certain hysterial, convulsive, and other nervous affections. It may be taken inwardly from half a grain to ten or twelve grains, or more; for as to doses, there can be no fixed rules about remedies and difeafes of these kinds. Dr. Lewis fays, that taken internally, from two or three grains to a fepule, it is accounted a high cordial, corroborant and antitiphomodic; and with this view it is prescribed by Riferius, in hypochondriacal affections. Dr. Swediar observes, that we cannot expect any medicinal effects from this fubflance in doses of two or three grains, but that it should be administrated in the quantity of as many fepules for a dose; though even then it could not be expected to produce any great effect, as he himself took 30 grains of pure unaculated ambergris in powder at once, without any fensible effect. A failer once took half an ounce, and found it a good purgative. The faculty of Paris directs a tincture to be drawn by digefting two fepules of ambergris in two ounces of a highly rectified spirit, impregnated with rofe. They have also a compound tincture made from the fame quantity of ambergris, with half as much muff, ten grains of cift, fix drops of oil of cinnamom, and four drops of oil of rhodium, digefted together in four and one-half ounces of a spirit impregnated with rofe, and orange flowers. This compound tincture is a very high perfume; and a few drops of it will give a fine fcent to a large proportion of inodorous matter. In preparing thefe tinctures, the spirit fhould be made to boil or fimmer with it first, that this ingredien may be completely diffufed before the more foluble ones are added. The orientals are faid to look upon it as an aphrodisiac, and fuppofe that the frequent ufe of it contributes to longevity. In Asia and part of Africa, amber- gris is ufed not only as a perfume and a medicine, but as an article of cookery; in which it is added to dishes in lieu of allifpe. A great quantity of it is bought by the Mecca pilgrims, probably to ufe it for the purpofe of fumigation and sacrifice, as the Catholics ufe frankincenfe. With us it is ufed by the perfumers to fcent pillars, candes, balls, bottles, gloves, and hair-power; and it is mixed with po- matums for the face and hands, either alone or compounded with muff &c.

Ambergris is very commonly counterfeited and adulterated. The first generally conifits of mufl, cift, torax, laudanum, and aloes wood, mixed together; the latter of a large quan- tity of bullock's blood, duly flavoured with mufl and cift. It is one of the moft agreeable perfumes; but mufl be proportioned fo sparingly, as that while it improves the smell of what it is added to, its own may not be perceived. It may be known to be genuine by its fragrant fcent, when a hot needle or pin is thruf into it, and its melting like fat, of an uniform confiance. Whereas the counterfeit will not yield such a smell nor prove of such a fat texture. One thing, however, is very remarkable, that this drug, which is the moft sweet of all the perfumes, fhould be capable of being refeembled in smell, by the preparation of one of the moft odious of all fcent fubflances. Mr. Homberg found that a veffel in which he had made a long digestion of the human feces, acquired a very strong and perfect fcent of ambergris, inofmuch that any one would have thought a great quantity of
of essence of ambergris has been made in it. The perfume was so strong and offensive, that the vessel was forced to be removed out of the laboratory. Mem. Acad. Roy. 1752.

AMBRIEUX, in Geography, a town of France, in the department of the Ain, and chief place of a canton, in the district of Belley, 14 leagues north-north-east of Lyon. The place contains 1276 and the canton 7275 inhabitants. The territory comprehends 105 kilometres, and 5 communes. N. lat. 4° 47' 58", E. long. 5° 15'.

AMBERING is used, by some writers, to denote the giving a scent or perfume of amber to any thing. This is otherwise called amburing. Dr. Hooke mentions an extraordinary method of amburing in infantum, i. e. with a small quantity of amber, and other refigtities, encumbraving a hundred or a thousand pounds of sugar, or the like, so as the first matter still remains unaltered, to be used again. Hooke's Phil. Collec. N° 4.

AMBERT, in Geography, a town of France, in the department of Pay de Dunois, and chief place of a district, situated on the riviere Dore, 104 leagues south-east of Clermont. It has a manufacture of cambks and woollen stuffs, and also of excellent paper and playing-cards, &c. The place contains 5926, and the canton 16356 inhabitants. The territory includes 265 kilometres and 8 communes. N. lat. 4° 37', E. long. 3° 30'.

AMBETTUWAY, in Botany, the local name of a tree, the leaves of which are said, when boiled in wine, to create an appetite, and used by the people of Guiana, for that purpose.

AMBIA, in Ancient Geography, an episcopal city of Africa, in Mauritia.

AMBIANI, a people of Gaul, in Belgia Secunda, mentioned by Caesar, Strabo, Phiny, and Ptolemy. They were situated between the Morini to the north, the Atrebati and Veromandui to the east, the Belovacii to the south, and the Caleni to the west, and had the sea on the north-west. Their principal river was Samara, and their capital Samarobriva, which afterwards took the name of the people. These people were distinguished among the ancient Belgians. We learn from Caesar that afterwards furnished 5000 men for the siege of Alenya, and their cavalry are much commended.

AMBIANUM, now Amiens, the capital of the Ambiani.

AMBIBARI, a people of Gaul, in Belgia Secunda, mentioned by Caesar, Strabo, Phiny, and Ptolemy. They were situated between the Morini to the north, the Atrebati and Veromandui to the east, the Belovacii to the south, and the Caleni to the west, and had the sea on the north-west. Their principal river was Samara, and their capital Samarobriva, which afterwards took the name of the people. These people were distinguished among the ancient Belgians. We learn from Caesar that afterwards furnished 5000 men for the siege of Alenya, and their cavalry are much commended.

AMBIDRAN, a people placed by Ptolemy in Norica.

AMBIDEXTER, compounded of amb, both, and dexter, right hand; by analogy to the Greek, δεξιός, which signifies the same; one who uses both hands alike, the left as well as right, or in cases where only the use of one is necessary.

Women, according to the observation of Hippocrates, are never ambidextrous. But this is denied by some moderns, who give inferences of the contrary; though it is owned, they are but few in comparison of those that are found in the other sex. It may be imputed to education and habit, that men as well as brutes are not all ambidextrous, there being no difference of right and left in the nature of things. Nurses are even forced to be at some pains to ensure the infants under their care to forego the use of their left hand. How far it may be our advantage to be deprived of half our natural dexterity, may be doubted. It is certain there are infinite occasions in life, when it would be better to have the equal use of both hands. Surgeons and ocultists are of necessity obliged to be ambidextrous; bleeding, &c. in the left-arm or left-ankle, and operations on the left-eye, cannot be well performed but with the left-hand. Divers inferences occur in history, where the use of the left-hand has been cultivated preferably to the right. But by the laws of the ancient Scythians, people were enjoined to exercise both hands alike, without partiality either for the right or left; and Plato enjoins ambidexterity to be observed and encouraged in his republic. In the Grecian armies their more distinguished officers, their pilkemen and halberdiers, as those who formed the first line of their battalions, were to be able to fight indifferently with the left hand or right. We find it mentioned in Scripture, that, on an extraordinary occasion, the single tribe of Gad produced 700 brave men, who fought with the left hand as well as the right; and the Roman historians affirm us, that they had gladiators who were trained up to the same exercise. An ingenious French writer is surprised, that among all the modern refinements in the art of war, none have thought of restoring the ancient practice of forming ambidexters, which, it is certain, might be of considerable service in the way of stratagem. In performing on keyed instruments, the harp, the dulcimer, and such as have a separate part for each hand, ambidexterity is necessary. On the piano forte, organ, harpsichord, or clarichord, two right hands are so necessary, that a child rigidly prohibited the use of the left hand in the common offices of life, can never have a powerful left hand in performing on the instruments just mentioned; but in rapid divisions, fugues, and imitations, the clumminess with which difficult passages are performed with the left hand disgraces the player and injures the composition. In the serious studies and practice of the student on the piano forte intended for the profession, it might be necessary for him perhaps to try to execute all kinds of feeble passages, flesh, beats, and trills with the left hand, till they can be played with so much ease and brilliancy, that a distant hearer, out of sight of the instrument, shall not be certain which hand has been employed.

AMBIDEXTER, in Law, denotes a person who takes money from both of the contending parties to aid them in their cause. In this sense the word may be applied to a judge, juror, a solicitor, or the like. The penalty on a juryman, if it be unfavourable to his client, is to forfeit decies tantum, ten times as much as he receives.

AMBIEGNA, in Antiquity, an appellation given to a victim, which was surrounded, or attended at the time of offering it, with other lesser ones. In this sense the word is also written ambigui. We read of ambigae once, used in sacrificing to Juno: which were sheep, having brought forth twins, and offered up with two lambs fattened on either side.

ABIENT, formed of ambire, to encompass, a term applied to such things as encompass others round about; called also circumambient bodies. The whole body of air, because it encompasses all things on the face of the earth, is often by physical writers called, by way of eminence, the ambient, or ambient air.

AMBIERLE, in Geography, a town of France, in the department of the Rhone and Loire, and chief place of a canton, in the district of Roanne, eight miles north-west of Roanne.

AMBIGENAL hyperbola, in Conics, a name given by Newton in his "Enumeratio Linearum tertii Ordinis," to one of the triple hyperbolas, E G F (Plate I. Conics, fig. 1.) of the second order, having one of its infinite legs, as E G, falling within the angle A C D, formed by the asymptotes A C, C D, and the other leg G F falling without that angle. See Hyperbola.

AMBIGU denotes a kind of mixed entertainment, where-
in both flesh and fruit are served together; so that it seems doubtful whether to denominate it a mere collation, or a meal.

AMBIGUA, in *Genusology*, a species of *Bulla*. Shell somewhat tapering, slightly compressed, pale flesh colour, with two remote bands, one broad and brown, the other blue. Gmelin. Country unknown. It is uncertain whether this shell belongs to the Linnean genus, in which Gmelin places it.


AMBIGUA, a species of *Phalera*, of the notula family. Thorax smooth; wings deflexed, greyish, speckled with black; behind the middle a black streak. Inhabits Austria; and is produced from a larva with a brown head and body, variegated with furrugineous and brown. Lower wings whitish, with a black spot in the middle. Fabricius.

AMBIGUOUS, something dubious, obscure, or which may be taken in different senses. See Equivocal.

The word is formed of *amb*o, both, and *ago*, I drive; q. d. that which keeps the mind wavering, or in suspense, not knowing which side to choose. The answers of the ancient oracles were always ambiguous. An anonymous writer has published a dictionary of ambiguous words. *Lexicon Philosophicum de Ambiguitate Vocabulorum*. Francoff.

1597. 410.

Ambiguity is occasioned either by a wrong choice of words and the use of equivocal terms, or by an improper arrangement of them. Ambiguities of the last kind are neither where the arrangement leads to a wrong sense, or where the sense is left doubtful. Dr. Campbell expresses the former by the term equivocation, and appropriates that of ambiguity to the latter. See Elem. of Criticism, vol. ii. p. 50–54. and Campbell’s Philosophy of Rhetoric, vol. ii. p. 26–38. See Perspicuity.

AMBIL, in Geography, one of the smaller Philippine islands, with a volcano, near the island of Leuan.

AMBILATRI, in *Ancient Geography*, a people of Gaul, suppos’d by Martin to be the same with the Ambilatres, who are called by Corfuus Ambilatres. Sampson places them in Britain, towards Lamballe.

AMBILICIT, a people of Norica, according to Tolemy.

AMBISINA, a town of Spain, assigned by Tolemy to the Murgoz.

AMBISONTI, or Ambissontes, a people so called by Pliny, and placed by Tolemy in Norica.

AMBIX, or figuratively, denotes the perimter, or the line or sum of all the lines by which it is bounded.

Isaac Volius has a particular inquiry concerning the ambit, or circumference of ancient Rome. That of the city he makes to be 601 miles, or *mile passa*, and that of the city and suburbs together 72 miles, exceeding ancient Babylon, whose ambit was only 68 miles.

AMBIX, ambitiosus, called also angiperitus, was particularly used, in *Antiquity*, to denote a space of ground to be left vacant between one building and another. By the laws of the Twelve Tables, houses were not to be built contiguous, but an ambit or space of 2½ feet was to be left about each for fear of fire. This was usually a thorough-fare, but sometimes not. For when Rome was crowded with houses, these interfiles were only left between some houses. Nero, after the dreadful fire which happened in his time, restored the ancient mode of building houses separate from one another.

Tacit. Annal. xvi. 43.

The ambitus of a tomb, or monument, denoted a certain number of feet, in length and breadth, around the same, within which the sanctity assigned to it was limited. The whole ground wherein a tomb was erected was not to be separated from the common ipsis; for this reason, it was frequent to inscribe the ambit on it, that it might be known how far its sanctity extended: thus, *in sents pedes toti*, in agnem pedes toti.

AMBITIANVS, in *Ancient Geography*, the place in which Caligula was born, and in which, according to Pliny, there were altars erected in honour of the prince. Claudius makes it the village of Capella, near Coblenz. M. d’Anville places it on the Rhine, between Confluentes on the north, and Baadberic on the south.

AMBITION, in Ethics, is that passion which prompts men to value or to seek any kind of eminence or distinction, as well as to avoid degradation and reproach. It is a kind of compound of admiration and desire, and becomes either a virtue or a vice, honourable or disgraceful, useful or pernicious, according to its direction or degree. The opinions of others concerning us, when expressed by words or actions, are principal sources of happiness or misery. The pleasures of this kind are usually referred to the head of honour; the pains to that of shame; but as it is most convenient to have a single word, to which we refer both pleasure and pain of this class, Dr. Hartley selects ambition for this purpose. He defines the several particulars which pertain, under the influence of ambition, with to have known to others, or concealed from them, in order to obtain praise or dispraise, under four heads; viz. external advantages or disadvantages, of which the principal are finelaces, riches, titles, and high birth, with their opposites, rags, poverty, obscurity, and low birth; bodily perfections and imperfections, of which the chief are beauty, strength, health, and the other, deformity, imbecility, or an infirmity of the body or the mind; the last, such as weakness, memory, invention, wit, learning, and their opposites, folly, dulness, and ignorance; and moral qualities, i.e. virtue or vice. This ingenious writer investigates, in conformity to his improved theory, the affections by which the pleasures and pains of ambition are produced. Observations on Man, § 2. prop. 95. p. 253, &c. Ed. 1791.

The Romans erected a temple to Ambition; and this was the divinity to which they offered the greatest number, or at least a very considerable number of sacrifices. It was represented with wings on its back, and naked feet, to express the extent of its desigins, and the promptitude with which they were executed. "A being of the nature of man," says an elegant historian, at the close of his account of the Byzantine princes, "endowed with the same talents, but with a longer measure of existence, would call down a flood of pity and contempt on the crimes and follies of human ambition, so eager, in a narrow span, to graze at a precocious and short-lived enjoyment. In a composition of some days, in a period of some hours, 600 years have rolled away, and the duration of a life or reign is contracted to a fleeting moment; the grave is ever before the throne; the felicities of a criminal is almost instantly followed by the loss of his fortune; and our immortal reason surives the 600 princes of beings who have passed before our eyes, and faintly dwells on our remembrance. The observation, that in every age and climate ambition has prevailed with the same commanding energy, may abate the prudence of a philosopher; but while he condemns the vanity, he may search the motive of this universal defect to obtain and hold the sceptre of dominion." Gibbon’s Hist. vol. ix. p. 10.

AMBITIONI, in *Ancient Geography*, a people of Galatia.

AMBITUS, among the *Ancient Roman*, the act of soliciting, or making intercessi, for offices or honours.

The candidates, in this cafe, went about the city, and into all publick places and assemblies, to beg votes; which
was called ambitiō; from om, in the ancient Latin, signifying circum, about, and ire, to go.

Among the Romans, it differed from ambitiō, as the former lies in the 2d, the latter in the mind. Ambitus was of two kinds, one lawful, and even laudable; the other infamous. This first, called also ambitus popularis, was when a person offered his services to the public, frankly, leaving it to every body to judge of his pretensions as they found reasonable. This kind was not prohibited by any law, but always approved and practised by the best and greatest men.

The means and instruments here made use of were various: 1. Amici, or friends, under divers relations, including cognati, affini, natali, camarali, consocii, tribales, clientes, municipi, sodales, collegae. 2. Nomenclator, or the calling and saluting every person by his name; to which purpose the candidates were attended with an officer, under the denomination of interrex, or nomenclator. 3. Blenda, or obliging persons by serving them, or their friends, patrons, or the like, with their vote and interest on any other occasions. 4. Prenotio, the shaking every hand by the person, offering him his service, friendship, &c. 5. Alfubitationes. 6. The toga candida, worn loose. 7. Beneficentia, the distributing largesses, cæsariæ, &c.

The second kind was that wherein force, caressing, money, or other extraordinary influence was made use of. This was held infamous, and severely punished, as a source of corruption and other mischiefs. This kind of ambitus was at one time the great trade of Rome, and demanded a constant supply of great sums of money. Tully assigns this as the cause of the high rate of interest, and tells us that it had raised it from 4 to 8 per cent. Siberyx was come to the pitch of 807.30l. per tribe: and there being no less than 35 tribes, it is obvious how expensive this corruption was grown. It is also well known where it ended. Several laws were made against it; as the Lex Aelia, or Calpurnia; A. U. 686, Aucilla, A. U. 672, Biboia, A. U. 571, Emilia, A. U. 675, Cornelia, A. U. 672, Caesilia Diaia, Fabia, Julia Angilia, Julia Cæsaria, Licinia, A. U. 658, Maria, Patella, A. U. 597, Pompeia, A. U. 701, Taulla Vetus, A. U. 900.

In the year of Rome 521, the use of the toga candida was prohibited. In the year 597, the candidates were forbid to go to the markets and meetings in the neighbouring towns. In 571, severe penalties were laid on the givers of largesse. In 594, this was made punishable by banishment. In 692, by the lex Aucilla, it was enacted, that if a candidate presented money to a tribe, and did not pay it, he should be exempt, but if he did pay it, he should be obliged to pay to every tribe a yearly fine of 5000 sesterces as long as he lived. In 697, heavy fines were imposed. By the lex Tullia, made in the consulship of Cicer, the candidates were forbidden to befall any combats of gladiators on the people, to make any publick feasts, or to cause themselves to be followed by a crowd of clients for two years before they offered themselves for any place. A senator, who was guilty of a breach of this law, was punished with ten years banishment; others were fined, and rendered incapable of any dignity for ever.

Ambitus was not only practised at Rome and in the forum, but in the meetings and assemblies of other towns in Italy, where numbers of citizens were usually found, on account of trade and buffines. The practice ceased in the city from the time of the emperors, because polling was not then to be had by counting the people, but by favour from the prince. Persons who had causes depending practised the same, going about among the judges to implore their favour and mercy. They who practised this were called ambitiose. Hence we also meet with ambitiōsa decreta, and ambitiōsa juxta; used for such sentences and decrees as were thus prepared by the judges, contrary to reason and equity, either gratuitously or for money.

Ambitus, in Moys, a name sometimes appropriated to signify the particular extent of each, or mode of grave and acute.

Ambivareti, in Ancient Geography, a people of Belgium Gaul, placed by Cesar beyond the Meuse. Martin places them between the Scalid to the west, and Moza to the east; and to the south of the Menapii, near the situation of the present Brabant.

Ambix, in Ancient Writers, denotes a vessel of glass or shell. Hence the origin of the word ambitus, which sometimes also called by the word ambitus.

Ambivada, in Ancient Geography, a town of Asia Minor, in Phulia, according to Stephan. But in Case, according to Strabo, who says, that the wine of Ambivada was useful in medicine.

Ambivatu, in Geography, one of the Molucca islands, is the smallllest of those that are subject to the governor of Amboina, and distant three leagues from Bumia.

Amble, Ambling, in Horsemanship, a peculiar kind of pace, wherein a horse's two legs, of the same side, move at the same time.

The ambling horses change side at each remove; two legs of a side being always in the air, and two on the ground at the same time: an amble is usually the first natural pace of young colts, which, as soon as they have strength enough to trot, they quit. There is no such thing as an amble in the manage; the riding-matters allowing of no other paces besides walk, trot, and gallop; their raison is, that a horse may be put from a trot to a gallop, without hopping him; but not from an amble to a gallop without hopping, which lasts time, and interrupts the junctures and cadence of the manage. This movement, which is very laborious to the horse, and in which he ought not to be indulged, except in smooth ground, is very easy to the rider; it has not the hardness of a trot, because the hind leg moves along with the fore one, and creates no resistance to the motion. Connoisseurs say that horses which naturally amble never trot, and that they are much weaker than those which have no such movement.

Colts, indeed, often assume this mode of moving, when forced to go quick, and when they have not strength enough to trot or to gallop; and even good horses, after being fatigued, or when they begin to decay, are apt, when pulled, to amble spontaneously. The amble may, therefore, be regarded as a motion occasioned by weakness or defect. But there are two other movements assumed spontaneously by weak or decayed horses, which are still more defective than that of the amble, and they are known by the name of broken amble. The one is a motion between walking and ambling, and the other between trotting and galloping. Both proceed from great fatigue or weakness in the loins, and are conspicuous in many of our hackney and polo-horses.

There are various practices and methods of discipline for bringing a young horse to amble; some choose to hold him in his foot-pace through new-ploughed lands, which naturally inures him to the iltrade required in the amble. But its inconveniences are, the weaknesses and lameness that such disorderly toil may bring on a young horse.

Others attempt it by sudden hopping or checking him in the checks when in a gallop, and thus putting him into an amazed, between gallop and trot, so that loosing both he necessarily stumbles upon an amble. But this is apt to spoil a good mouth and rein, and expels the horse to the danger of a hoof-reach, or fine strain, by over-reaching, &c.
"Others prefer ambling by weights as the best way; and to this end some overload the horse with excessive heavy shoes, which is apt to make him interfere or slide short with this hind feet. Others fold leaden weights about the fetlock patterns, which are not only liable to the mischiefs of the former, but put the horse in danger of incurable strains, cutting of the coronet, and breeding of ring-bones, &c. Others load the horse's back with earth, lead, or the like mally substance; but this may occasion a fawing of the back, over-slaing the irits, &c.

Some endeavours to make him amble in hand before they mount his back, by means of some wall, smooth nail or rail, and by checking him in the mouth with the bridle handle, and correcting him with a rod on the hinder hoofs, and under the belly, when he tends faile. But this is apt to drive a horse to a desperate phrenzy before he can be made to understand what they would have of him, and to rear, sprawl out his legs, and to make other antic postures, which are not easily quitted again. Others think to effect it by a pair of hind shoes, with long spurs or plates before the toes; and of such length, that if the horse offers to trot the hind-foot beats the fore-foot. But this occasions wounds of the back-finews, which often bring on an incurable lameness.

Some attempt to procure an amble by folding fine soft lift it raibout his gamsels, in the place where he is gardened for a stilt-lamein, and turn him thus to grafs for two or three weeks, and afterwards take away the lift. This is a Spanish method, but disapproved; for though a horse cannot then trot but with pain, yet the members must be fufferers; and though the amble be gained it must be slow and unprofitably, because attended with a crining in the hind-part. In effect, ambling by the trammel, as practised by us, appears the nearest to nature, and best and most artificial way.

There are divers errors, however, usually practised in this method; as, that the trammel is often made too long, and so gives no stroke, but makes a horse shake and shuffle his feet confusedly; or too short, which makes him volt and twitch up his hind feet to suddenity, that by custom it brings him to a running-bant, from which he will scarcely ever be recovered. Sometimes the trammel is misplaced, and, to prevent falling, put about the knee and the hind hoof. In which case the beast cannot give any true stroke, nor can the fore-leg compel the hind to follow it; or if, to evade this, the trammel be made short and straight it will prefix the main finew of the hind-leg and the flashy part of the fore-thighs, so that the horse cannot go without halting before and cringing behind.

As to the matter of the trammel fore to make it all of lether, which is inconvenient, in that it will either stretch or break, and thus confound the certainty of the operation. In a true trammel the side ropes are to be so firm as not to yield to a hair's breadth; the holc soft, and to lie so close as not to move from its first place; and the backband flat, no matter how light, and to depend from the illet fo as not to gall.

When the horse, by being trammelled on one side, has attained to amble perfectly in the hand, it is to be changed to the other side, and that is to be likewise brought to rule.

When by this changing from one side to another with a half-trammel, the horse will run and amble in the hand readily and swiftly, without snappering and tumbling, which is ordinarly done by two or three hours labour; the whole trammel is to be put on, with a broad, flat, backband, and both sides trammelled alike. See Trammel.

This pace is now generally difpersed, and not admitted in the regular system of the Manege.
are seen from a great distance at sea. On one side of this long and lofty ridge of mountains, which extends fifteen leagues inland, is the sea, and on the other a flat country, abounding in ponds and marshes. Here is also a lake fifteen leagues long, and of the same breadth, that contains several small islands. The people that inhabit these mountains are called Ambohitimenses.

AMBOINENSE, in Conchology, a species of Cardium. This shell is rather oblong, white, with blackish spots, and the ribs very convex. It inhabits the shores of Amboyna, is about an inch and three quarters in length, and the ribs are usually about twelve in number.

AMBOINENSIS, in Ornithology, a species of Certhia that inhabits Amboyna; it is of a cinereous colour above, beneath green, head and neck yellow, breast red, and wings black. Gmelin's Linn. This bird is remarkably brilliant and glossy, the length is about two inches and three quarters, bill half an inch long, and yellowish, and the edges of the wings and quills yellow.

This is the Tioxi, or Kakopot of Seba. Muf. or Avia Amboinensis; and Polytmus Amboinensis of Brillon. Dr. La-tham calls it the Amboina Creeper, observing, that "both Edwards and Buffon say, that humming-birds are peculiar to South America, and that none are found on any part of the old continent. It is most probable that the three half-mentioned (viz. the Mæsar, Indian, and Amboinan creepers) may belong to the creeper genus on our better acquaintance with them; which is the more to be supposed, as the whole description has been taken from Seba, who lived in an age not sufficiently enlightened in these matters.

AMBOINENSIS, a species of Psittacus, or parrot. It is of a fine scarlet, with a blue back, and a green spot in the wing. Gmel. Linn. This is the Phutaca Amboinensis cocinea (red Amboyna parrot) of Brillon, and Lori Perruche tricolor, (three-coloured Lori parrot) of Buffon, as well as the Perruche rouge d'Amboine, Pl. enl. of the latter author.

The length of this bird is fifteen inches and an half; the bill red, with a black tip; the head, throat, neck, and under parts scarlet; back, rump, upper tail, lesser underwing coverts, and the edge of the wings fine blue; under tail coverts violet in the middle, surrounded with red; the two middle tail feathers nine inches and an half in length, and of a violet brown; the exterior feathers decrease gradually in length, the outer one on each side being only four inches and an half long, and is distinguished from the rest by having the interior margin red. The legs and claws are red. It is a native of Amboyna, as its specific names imply.

AMBOINENSIS, a species of Turdus, rather bigger than a lark; it inhabits Amboyna, and is remarkable for its fine fingering, and for flitting up its tail, which reflects on the back in the breeding season.—The colour is ferruginous or reddish-brown, beneath yellow; the secondary quills feathers from the base to the middle yellowish, tail cuneiform or wedge-shaped, and fulvous beneath. Gmel. Linn. Seba calls this Aicula Amboinensis cinerea. It is the Merula Amboinensis of Brillon, Le Merle d'Amboine of Buffon, and Amboina thraup of Latham.

AMBOISE, George D', in Biography, a French cardinal and minister of state, was born of an ancient and noble family in 1465. As he was a younger son he was defined for the church, and at the age of 14 obtained the bishopric of Montauban. He was appointed almoner to Lewis XI. and raised by Lewis XII., to whole interef, whilst he was duke of Orleans, he attached himself, and for whom he suffered imprisonment, to the archbishopric of Narbonne, which he changed for that of Rouen. In the situation of lieutenan general, under the duke of Orleans, who was governor of Normandy, he was instrumental in restoring justice and order to that province. Upon the accession of Lewis XII. he was made cardinal and prime minister, and acquired popularity by diminishing the impots. After the conquest of the Milanese in 1499, he recovered the people who had revolted to their allegiance. As the pope's legate in France he attempted the reformation of the ecclesiastical orders, and promoted it by his own example; for he held only one benefice at a time, and devoted two thirds of the revenue of his archbishopric to the relief of the poor and the repair of religious edifices. He aspired to the papacy with a view of more effectually accomplishing his schemes of reform, but he was counteracted and outwitted by the Italian cardinals. As a minister of state he contributed so much to the welfare of the nation, that he was honoured with the appellation of "the father of the people." For the purpose of reforming the courts of judicature, and supplanting partiality and bribery in the administration of justice, he caused to be compiled a new code of regulations, and exercised his authority in Normandy, where he was governor, in reducing them to practice. The disappointment of his views with regard to the papacy, induced him to recommend a war with the Venetians, to whom he conceived it was owing. Conscious of some errors and faults into which his ambition had led him, he expressed his concern in the review of his conduct to an infirmary brother, who attended him at the convent of the Celestines, at Lyons, where he was taken ill, in the prosecution of his journey for the Venetian war.—"Brother John! I why have not I been all my life-time brother John," He died in this place, A.D. 1510, in the 50th year of his age. During the whole of his administration he caused the sciences and trade to flourish. He was a munificent patron and encourager of literature; and such was his general conduct in the various stations which he occupied, and especially as prime minister, that he was as much beloved by the people as by his master. Gen. Dict.

AMBOISE, Francis D', was the son of a surgeon to Charles IX. of France, and maintained by his liberality in the college of Navarre, where he studied rhetoric and philosophy. In 1572 he was made solicitor of the French nation, and afterwards applying to the study of the law, became one of the best advocates of the parliament of Paris. From this employment he was advanced to that of counsellor in the parliament of Bretagne, and then to be a matter of requets and counsellor of state. He published several pieces chiefly of a poetical kind, and others containing an account of his travels into various countries. He took great pains in collecting the MSS. of Abelard, and he prefixed an apologetical preface to the edition of 1616. His two brothers, Adrian and James, arrived at considerable literary and professional eminence; the former as an ecclesiastic and the latter as a physician. Gen. Dict.

AMBOISE, Ambosia, or Ambacis, in Geography, a town of France in the department of the Indre and Loire, and chief place of a canton, in the district of Tours; situated at the confluence of the Loire and Amance. The place contains 5100, and the canton 14,415 inhabitants; the territory comprehends 322½ kilometres and 16 communes. It has two parishes churches, four convents, and a hospital; and near it is a large castle seated on a high rock, and difficult of access, in which are thrown the statues of Charles VIII. and of his consort Anne. In this place the protestants confirmed in 1560, and the civil war commenced in 1561, and here it is said the name of Huguenot had its origin. In the castle of this town Lewis XI. instituted...
AMB

situated the order of St. Michael, in 1467; and Charles VIII. was born in 1470, and died in 1498, at Ambofie, N. lat. 47° 24' 51", W. long. 5° 39' 7".

AMBOISES, see AMBEZEEES.

AMBON, a town of France, in the department of the Morbihan, three leagues S.E. of Vannes.

AMBOUM, in Natural History, a term used by some old writers, to express the prominent tubercles on certain lones.

AMBORA, in Botany. See MITHRABEAE.

AMBOTE, in Geography, a town of Poland, in Samogitia, on the river Warwana, 28 miles north-east of Mednik.

AMBOTEN, a town of the duchy of Courland, eight leagues south of Goltingen.

AMBOLUE, valley of, a province of Madagascar, is situated somewhat more northward than 23° south latitude, at the mouth of the river Manampao, which waters the whole valley. In this valley flounders a large town of the same name. The country produces abundance of plants and fruits, particularly yams, and the céfame herb, whose seeds yield by expression the oil called menachil; the oxen and cows are very fat, and their flesh excellent. There is also iron mines. Near the town of Amboule is a fountain of hot water, within 20 feet of a small river whose sand is almost burning. The water of this fountain is said to boil an egg hard in two hours, and to be a sovereign remedy against the gout. The inhabitants of the country are employed in different preparations of iron and steel, which they obtain from their own mines, and forge darts and various other instruments, with considerable skill. The voadviziri, or chief governor of the country is honoured with the title of great lord, or rabetan; and he is the richest and most powerful of the chiefs in this country. He exercises sovereign authority, and absolute power; but in times of public disaffections his subjects often assemble in great numbers, seize his person, and threaten him with death, unless they are relieved; and this he does, by issuing orders for distribute provisions among them. The people are represented as licentious, dishonest, and indolent. Mod. Un. Hist. vol. xi. p. 404.

AMBOURNAY, or AMERONAY, a town of France, in the department of the Ain, and chief place of a canton, in the dioces of St. Rambert. It is situated in the road from Lyons to Geneva; has a parish church, a hospital, and an abbey of Benedictine monks, founded about the year 830; nine leagues north-east of Lyons, and one mile and an half north-west of St. Rambert. N. lat. 46° 1'. E. long. 5° 16'.

AMBOUTNOSSI, a small island on the coast of Madagascar, near the bay of Gaetemboule; and also a river of the same name.

AMBOY. See PERTH-AMBOY.

AMBOYNA, one of the Molucca or spice islands, in the Eastern Indian Ocean, lies in S. lat. 4° 25', and E. long. 127° 25'. This island is about 60 miles in length from north to south, and is divided on the west side, by a large bay into two parts or peninsulas, one of which, being about 12 leagues long, and two and a half broad, is called Heto; and the other about five leagues in length, and one and a half broad, is called Leytimoa. On the eastern side is another bay, with a bad harbour, where the Portuguese erected their chief fortresses Victoria. The town of Amboyna, which is the capital of the island, is nearly built, and stands near the south-west extremity. As the island is subject to frequent earthquakes, the houses generally consist only of one story; but the state-house is a more lofty edifice of two stories. The face of this island is beautiful; as woody mountains and verdant vales are interspersed with hamlets, and enriched by cultivation. The soil is chiefly a redish clay, but in the vales it is blackish and sandy. The chief produce of the island, in consequence of the restrictions imposed by the monopolizing avarice and defopitum of the Dutch, is cloves; and the clove-tree grows to the height of about 40 or 50 feet, with spreading branches, and long pointed leaves. Some of these trees, that are situated in deep sheltered vales, yield annually thirty pounds weight, and the chief crop is from November to February. The Dutch governor, in order the more effectually to secure this monopoly, makes an annual progress through the three islands, for the purpose of enforcing the observance of existing treaties, and of preventing the culture of cloves beyond the limits to which it is restricted. About twelve years ago, indeed, nutmegs were allowed to be cultivated in Amboyna, because Banda did not supply a sufficient quantity. The growth of indigo is prohibited, lest the natives should become rich and turbulent; but the sugar and coffee are excellent, and among many delicious fruits, which the island produces, is the mangifere of Hindostan. Cattle, grain, &c. are imported from Java, and they have a variety of curious woods, but these are chiefly brought from Ceram. The plants of the island have been described by Rumphius. The principal animals are deer, and wild hogs, and among their birds is the cassowary. Amboyna, with its dependencies, contained in 1798, when it was taken by the English, 45,252 inhabitants, of whom 17,813 were protestants; the rest were Mahometans, except a few Chinefs, and savages. As this is the next settlement to Batavia, with respect to wealth and importance, the Dutch are tolerably polished; but the natives are still rude and unacquainted. They resemble the other Malays, and when intoxicated with opium they will commit any crime. Their dress is a loose shirt or frock of cotton cloth; the men wear large whickers, and leave a little hair upon the chin; the women tie the hair in knots; wives are bought of their fathers, and if they prove barren, the marriage is dissolved. Their houses are made of bamboo canes and fago-trees; they sleep on mats; and their weapons are bows and arrows, javelins, feymets, and targets; and their chiefs are called Rajas.

The islands that are immediately subject to the Dutch governor of Amboyna are ten, comprehending an extent of about five degrees of longitude, that of Amboyna being farthest to the south; these islands are Ceram, Ceram-Lavut, B visc, Amba, Manipa between Bouro and Ceram, Kelang, two leagues north-east of Manipa, Bonva farther north, Orna two leagues east of Amboyna, Homimoa, a league east of Orna, and Roufa-Laout, a league south-east of Homimoa. The three last islands are denominated Uli-afers. The culture of cloves is restricted to these three islands, and Amboyna; but they formerly grew in all the islands, more especially in Ceram. Amboyna is the capital of this rich commerce, and the Dutch have taken care to destroy all the clove-trees in the adjacent islands, and it is said that even in Amboyna, when the harvest is very large, part of the produce is burnt. Soon after the fruit is gathered from the tree, the cloves are collected and dried on hurdles before the fire; and thus their natural and beautiful red colour is changed into a deep purple or rather black, to which their being sprinkled with water probably contributes. The reason assigned for this sprinkling is to prevent the worm from getting into the fruit; but it has been generally supposed that the true reason is to add weight to the
the cloves. The cloves are carefully gathered by the hand; and the produce is very different in different seasons; but at a medium of seven years it has been estimated at a million of pounds.

Amboyna was first discovered by the Portuguese adventurers Diego d’Abreu and Ferdinand Magellan, about the year 1515, and taken possession of in 1564; it was conquered by the Dutch about the year 1605; but it was some time before they became complete masters of the whole island. The English were at this time in possession of several factories, that were protected by the Dutch arms, but differences having arisen between the English and Dutch colonists, they were terminated, or rather suspended, by a treaty concluded in 1619 between Great Britain and the States General of the United Provinces. In consequence of this treaty, the English lived in security at Amboyna; and enjoyed one-third part of its clove, whilst the Dutch were in possession of the other two-thirds. In the year 1622, fresh occasions of differents arose; these were referred to the council of defence established at Jactara, in the island of Java; and the council, not being able to decide to the satisfaction of all parties, the fate of the cake was transmitted to Europe to be settled by the East India Companies of both nations, or, in the last resort, by the king of England and the States General. During the deliberations in Java and Europe, the diffidence at Amboyna increased, and the Dutch contrived, by a feigned plot, to get possession of the whole island. This plot, as it was pretended, was confederated by two foldiers in the Dutch service, one a Japalnese, and the other a Portuguese, who, upon a ground of suspicion, trivial and even imaginary, had been put to the torture; and, by the testimony of these two unhappy wretches, confirmed by that of an English prisoner who was also sentenced to the rack, the English were accused of being confederates in a conspiracy against the Dutch settlement. Upon this extorted confession, the English were feized; some of them were imprisoned, and others loaded with chains and confined on board the ships in the harbour; and their books and property were seized. By a process of varied torture of the most savage kind, the governor and his cabinet contrived some of the wretched sufferers, after pretending their own innocence and total ignorance of the pretended conspiracy, to acknowledge the truth of charges that were altogether unfounded. Some were racked, drenched with water, and scorched with fire; others were compelled to swallow such quantities of water as caused their bodies to be distended to more than twice their usual dimensions, and then made to diggory, by violence, the water which they had swallowed; and others were confined by burning them gradually from the soles of the feet upwards. But humanity shudders at the recital of such acts of barbarity. Of those who escaped or survived this savage treatment, ten Englishmen, with one Portuguese, and eleven Japalnese were executed, though all of them pretended their innocence with their expiring breath. The day following that of the execution was spent, by order of the governor, in public rejoicings and the takings of fire for signal an escape and deliverance from a pretended conspiracy, and for the iniquitous extirpation of their rival traders. That the conspiracy was a mere pretence on the part of the Dutch for gaining the sole possession of the island, is evident from various concurren circumstances. They had, at this time, a garrison of 300 men in the fort, and several other garrisons in the island; whilst the number of the English did not amount to 20 persons, who were unprovided with arms and ammunition for effecting the purpose with which they were charged. The English had not one vessel in the harbour, whereas the Dutch had eight ships near the town. When the boxes of the factors were opened, and their papers ruffled, no trace of any such conspiracy could be discovered; and, besides, the sufferers on this occasion profited in avowing their innocence. The English factory was withdrawn from the island; and the Dutch governor retained the effects that had been seized, amounting, as some say, to the value of 400,000 pounds. When the English council at Jactara demanded justice, the conduct of the governor was vindicated, and his proceedings were declared to be just and indisputable necessary; and from all the subsequent proceedings of the Dutch, it sufficiently appears, that the plot was of their own invention, and that their object was to monopolize the whole trade of the Spice islands; for, after the catastrophe at Amboyna, they seized all the English factories in these islands, and dispossessed the English, to their incredible loss and damage. When the news of this transaction reached England, and sufficient proof was adduced of the treachery and cruelty of the Dutch, it was natural to expect that reparation would be demanded and obtained. If, indeed, King James I. had acted with becoming spirit, and made proper representations to the States General, justice would probably have been done; for such atrocious villanies could not have been abetted by any civil community. But James submitted to the national injury even without requiring satisfaction, and contented himself with merely telling the Dutch ambassador, “That he never heard nor read a more cruel or impious act, than that of Amboyna.” But he adds, “I forgive them, and I hope God will, but my son’s fon shall revenge this blood, and punish this horrid massacre.” Charles I. finding remonstrances, letters of requell, and memorials ineffeetual, was preparing to increase his shipping, and to call the Dutch to an account; but he was prevented from accomplishing his design by the civil war which ensued. Cromwel, in this instance, avenged the wrongs of the British nation; for among the conditions on which he gave peace to the Dutch, in April 1654, it was inferred, “That they should deliver up the island of Poloneez in the East Indies,” which they had taken from the English in the time of King James; and where they had acted a tragedy similar to that at Amboyna, “into the hands of the English East India Company; and pay a good sum of money (300,000/) for the old barbarous violence exercised to many years since at Amboyna, for which the two last things could never obtain satisfaction and reparation.” The Dutch, however, have long retained unaltered possession of this island.—But both Amboynas and Banda were taken without resistance in February and March, 1796, by the English admiral Rainer; however they have been restored to their Batavian masters by the treaty with France in the year 1801. Mod., U. Hilt. vol. viii. p. 288—301. vol. ix. p. 70. Alfatc Regisfer for 1800. p. 200.

AMBRA, or ABRA, Cape, in Geography, sometimes called Cape Natal, is the north point of Madagascar island. S. lat. 12° 15’. E. long. 49° 10’.

AMBRACIA, in Ancient Geography, was one of the most considerable cities of Epirus, and situated in the territory of Thesprotia, near the mouth of the river Arachthus or Arethusa, and the gulf to which it gave its name. It was built, according to Polybius, (lib. iv.) by Ambraz, son of Thesprotus; probably when the territory of his father had been ravaged by the Dryopes, and afterwards by Hercules; and thus the origin of the Ambracians is traced to an era about 50 years before the last war of Troy. Strabo (lib. vii.)
(lib. vii.) says, that Ambracia was the work of Tolgus, the son or the brother of Cypleus, who was tyrant of Corinth, and lived about 620 years before the Christian era. A colony from Corinth under the conduct of the Etonians arrived in Epirus, and delivered the Ambracians from the tyranny of Phaeacus, and reduced them into subjection to himself: and Aritudes informs us, that they drove away Periander the son of Cypleus, and recovered their ancient liberty, for it was originally a free city. It was afterwards reduced by the Achaic kings of Epirus, who chose it for the place of their residence. In processes of time, the Etonians made themselves masters of it, and held it till the year before Christ 180, when they were subdued by the Romans, who found at Ambracia a great number of pictures and statues belonging to the magnificent palace of Pyrhus.

At this time it was a place of great strength, defended on one side by the river Arachthus, and on the other by steep and craggy hills; and it was surrounded by a high and thick wall, about three miles in circuit. It was vigorously beleaguered by the Romans and their allies, the Epirotes, under the conduct of the Roman confidant Marcus Fulvius, and as bravely defended by the Etonian garrison. It was at length compelled to capitulate; and Fulvius was presented with a crown of gold, which is said to have weighed 150 pounds. Paulus Emericus also deprived its inhabitants of their privileges and effects. Livy (lib. xxxviii. c. 4) has given a particular description of Ambracia. It is now reduced to a small place of Turkey in Europe, called Ambraea, on the lower part of the gulf of Larta in the southern Albania.

AMBRACIUS SIRUS, the gulf of Ambracia, now the gulf of Larta, was situated between the country of the Molossi in Epirus, to the north, and Acarnania to the south, and communicated with the Ionian Sea, by a strait called that of Actium.

AMBRARIA, in Botany. See Antho spermaum.

AMBRAS, or OMBRAS, in Geography, a town of Germany, in the county of Tyrol, four miles east of Innsbruck.

AMBRAYET, a river of Hindostan, which runs into the Cauvrey, eight miles east-north-east of Carroor.

AMBREDA, thus they call the sable or factitious amber, which the Europeans use in their trade with the Negroes on the coast of Africa, and particularly on the river Senegal. There are some large and red pieces of it, a thousand of which making twenty ropes of strings weigh three pounds. There are others small, and also red, which weigh but two pounds and a half.

AMBRES, in Geography, a small town of France, situate on an eminence, in the department of Tarn and diocese of Caftres.

AMBREBURY, or Ambersbury, a town of England, in the county of Wilts, pleasantly situate in a small valley on the banks of the Upper Avon, and consisting of two streets. The town is indifferently built, and has all the appearance of decay. Whether it derived its name from Ambrosius' consecrated stone, as Toland supposes—from its neighbouring monument, Stonehenge, being erected by Aurelius Ambrosius, who is supposed to have been slain near this place—or from Ambri, a Britth monk, who founded a monastery in this place—it is not easy to determine. In former times it was a place of importance. Some have supposed that, when the Britons retired to the general Gergael at Stonehenge, Ambrebury might have been used as a resting-place, or place of Assembly, and that Ambri founded a monastery here for the benefit of future devotees. At this town a nunery was founded by Eifrida, widow of King Edgar, in expiation, as it has been said, of the atrocious and unpro

voked murder of her son-in-law, Edward the Martyr, at Corfe Castle. Queen Eleanor, widow of Henry III., retired to Ambrebury, took the veil, and died a nun in 1201; and her grand-daughter Mary, the sixth daughter of Edward I. followed her example, and in company with 13 children of the English nobility retired hither, and took the veil in 1285. The nuns belong to this monastery, after its dissolution, and in process of time, became the property of the Assisbury family. To the west of the river Avon is a camp, occupying the whole summit of a hill, which has been generally attributed to Velopius; but an ingeniour tourist suggests that it is the camp, or town, often mentioned in the old British writings under the name of Casor Caradac. It is constructed in the shape of a square figure, with a very deep valum towards the west; and to the east it overlooks the town. The road passing from Ambrebury to Warminster is cut through the rampart of this fortification. The market of this town is on Friday; and it is distant from London 78 miles.

AMBRI, in Ancient Geography, a name given by Julius to a people of India, who lived upon the banks of the river Acenues. The Ambri are, according to M. d'Anville, the same as the Oxymri.

AMBRIERE, in Geography, a town of France, in the department of Mayenne, and chief place of a canton in the district of Mayenne, in the department of Mayenne. The place contains 2,234, and the canton 14,077, inhabitants; the territory includes 16,541 kilometres, and 10 communes. N. lat. 48° 24'. W. long. 0° 44'.

AMBRIZ, or AMBRIS, a river of Africa, in the kingdom of Congo, which springs from a lake in the eastern mountains of Tonda, and runs westward into the ocean between the mouths of the Luherda and Loze. It runs by the town of St. Salvador. Its course is rapid; its channel deep, and large; and its waters muddy. S. lat. 7° 10'. E. long. 12° 25'.

AMBRACHOS, in Ancient Geography, a country of Africa, in Marmaria, according to Ptolemy.

AMBRONAX, a town or borough, placed by Ptolemy in Paphia.

AMPROGI, DOMINOLO, in Biography, an Italian artist, flourished in 1653, and painted history and landscape. He was the disciple of Brizio, and, as an engraver, he is said to have executed some prints on wood in Chiare-Seuro. One of his engravings is "a woman seated in a triumphal chariot with two flamebeaux and a serpent, conducted by Neptune." Strutt.

AMBROMA, in Botany. See AEROMA.

AMBRONES, in Ancient Geography, a people of Gaul, known in the Cimbri war. They were probably the ancestors of the Ligurians, and had possessions to the north and south of the Po. They invaded the Roman territories, as Plutarch (in Marco) informs us, in conjunction with the Cimbri and Teutones, and were defeated with great slaughter by Marius, about 103 years before Christ. Their wives, who were waiting the issue of the engagement, seeing their husbands flying and the Romans pursueing, armed themselves with axes, and, gnashing their teeth, fell furiously on the pursuers and the pursued, without distinction. Headlets of their own defence, they threw themselves upon the combatants, seized their swords, and endeavoured to snatch away their bucklers; but when their rage was exhausted, they offered to capitulate on this single condition, that their honour should be preferred. When this condition was denied, these unfortunate women, being reduced to despair, first killed their children, and afterwards themselves, not one of so great a multitude remaining alive.
AMBROSE Island, in Geography, a small island of the Baltic, under Osel, seven leagues south-east from Dzenfiefs, and eight leagues north-west from Round Island. See ARENSBURG.

AMBROSA Island, is situated on the coast of Chili, in South America, on the Pacific Ocean. S. lat. 26° 49'. W. long. 82° 35'.

AMBROSE, of Alexandria, in Biography, the friend of Origen, flourished about the beginning of the third century. He was descended from a good family, affluent in his circumstances, and distinguished by his intellectual accomplishments and Christian virtues. According to Jerome he was a Marcionite, but Euch. calls him a Valentinian; and he was convinced of his errors by Origen, about the year 321, in consequence of which he became a deacon of the church, either at Alexandria, or at Caesarea, where Prototetus was presbyter. To both these persons Origen inscribed his book on Martyrdom, and he dedicated to Ambrose many of his other works, which were published at his desire and charge. Origen and Ambrose lived on terms of the most intimate friendship; they were alike indefatigable in their application; and Ambrose alluded Origen by procuring him notaries, and amanuenses, who copied his works, and to whom he occasionally dictated. Origen represents his friend, as a person eminent for his piety and for his diligent study of the Scriptures. Although Jerome reports that Ambrose was blamed by many for making no provision at his death for Origen, who was not only poor but likewise far advanced in years, Tillmont suggests this apology for him, that he knew his friend's mind, and that Origen chose to be poor, and to live in a state of dependence upon Providence. Some say that Ambrose died, with his friend Prototetus, as a martyr, in the persecution under Maximus, about the year 355; but the dedication of Origen's eight books against Celsus flew, that though he died before Origen, yet he lived to the year 250, or near it. Ambrose had a wife named Marcella, by whom he had several children; and he is commended by Origen as true Christian and a faithful wife. Lardner's Works, vol. ii. p. 447. Cave's H. L. vol. i. p. 122.

AMBROSE, St. bishop of Milan, descended from a noble family of Romans, was born in Gaul, as some say, in the year 333, but according to others, in 340. His father, at the time of his birth, was prefect of Gaul, and resided at Arles, the capital of Gallia Narbonensis. The son, after passing through the studies of a liberal education, attained, by the regular gradation of civil honours, the station of Confular of Liguria, a province which included the imperial residence of Milan. In the exercise of this government, he manifested a degree of wisdom and equity which obtained general esteem. At the age of 34, and before he had received the sacrament of baptism, a circumstance occurred which served suddenly to transform him from a civil magistrate to an ecclesiastical governor. His mother, and his sister Marcellina, both women of distinguished piety, had trained him up not only in habits of virtue, but with an early bias towards the religious system of the Catholic church. Thus previously disposed, he was prepared for availing himself of a dispute concerning the succession in the episcopal see of Milan, which had been produced by the death of Auxentius, who had been the leader of the Arian party in the west. In a tumultuous contest between the Arians and Catholics for supplying the vacancy, Ambrose presented himself to the assembly, and by an eloquent speech recommended a peaceable election. At the close of his address, a child exclaimed—"Ambrose is bishop!" The voice of the infant was regarded by the faithful multitude as a miraculous suggestion, though others might more naturally have inferred that it was the result of contrivance on the part of Ambrose or his friends. But the expedient, however, was effectual, and Ambrose was immediately elected by acclamation. The civil magistrate expressed great reluctance in complying with the public choice, and recourse to a variety of singular expedients to divert the multitude from perceiving in the appointment. The emperor Valentinian was at length solicited to confirm and enforce the election; and as the talents and character of the bishop elect were well known to him, he very readily interposed. Ambrose submitted to his authoritative injunction, and, after baptism, was ordained to the episcopal office. The ecclesiastical historians, acquitting the bishop and his friends of art and intrigue, and considering his opposition as real, represent the choice as "a divine election," and "the peculiar work of God." But the traces of human contrivance were much more discernible in the whole conduct of this business than those of a divine operation; and it will not be easy to exculpate the bishop himself from all concern in the plot.

Unprepared as Ambrose was, by the habits and occupations of his former life, for the new office that was devolved upon him, the active force of his genius soon qualified him to exercise, with zeal and prudence, the duties of his ecclesiastical jurisdiction. With this view, he bestowed his money upon the poor, settled his lands upon the church, with the reserve of a life-interest in favour of his heirs, and committed the care of his house and family to his brother. Thus disengaged from secular concerns, he commenced a course of theological study with Simplician, presbyter of Rome, and devoted himself to ecclesiasticalibus. In 357 he was obliged, by the irritated of the Goths and other northern barbarians, to retire to Illyricum; but the invaders were soon defeated by the Roman emperor, and Ambrose and the other exiles were allowed to return home. The prevalence of the Arian doctrine furnished ample occasions for the zealous exertions of Ambrose. Having written a treatise concerning the Trinity, for the establishment of the faith of Gratian, he was less successful in his attempts for converting the younger Valentinian, Gratian's colleague in the empire. The instructions of his mother Juliana, who was an avowed Arian, counteracted the arguments of the orthodox prelate. Ambrose, by his influence with Gratian, prevented the assembling of a general council, which he had agreed to convene; and probably fearing that the sentiments of the whole body of Christian bishops would be favourable to Arianism, he withheld the decision of the dispute to be referred to an assembly of the western clergy. Here the two "rotten heretics," as he called the two Arian bishops, Palladius and Secundianus, might be easily silenced. Accordingly a synod, consisting of 32 bishops, was held at Aquileia in 381, and Ambrose presided. Palladius very properly demurred against the decision of such a partial assembly, and it terminated with Ambrose's election of the two obnoxious bishops from the episcopal office. The orthodox prelate was no less zealous in his opposition to the followers of the ancient pagan religion than in his efforts for suppressing Arianism. The leader of the pagans was Symmachus, a wealthy and eloquent senator; and in the year 384 he was employed to prepare and present a petition for re-erecting the Altar of Victory to its ancient place in the hall of the senate; and the public funds for the support of the seven veiled virgins, and their religious ceremonies. To the talents of Symmachus were opposed those of Ambrose, who addressed a letter to Valentinian, in reply to the pleas of this petition; and he concludes with observing, that it was
was a debt which Christian princes owed to their faith, not to give countenance to heathen rites. Ambrose prevailed, and the petition of Symmachus was rejected.

The Arians were at this time a more formidable body to the intolerant bishop than the pagans. They were supported by the young emperor Valentinian and his mother Julitta; and they concurred in demanding from the bishop the use of two churches, one in the city and the other in the suburb of Milan. The bishop peremptorily refused; alleging, that though the palaces of the earth might belong to Cæsar, the churches were the houses of God; and that, within the limits of his diocese, he was the lawful successor of the apostles, and was the only minister of God. The privileges of Christiandom, temporal as well as spiritual, were confined to the true believers; and Ambrose was satisfied in his own mind that his own theological opinions were the standard of truth and orthodoxy. He therefore declared, that it was his firm purpose to die a martyr rather than to yield to the impious persecutor, by delivering up the temple of the Lord into the hands of heretics. Julitta deftined the refusal as an act of disloyalty and rebellion; and as the defined to perform her public devotions on the approaching festival of Easter (A.D. 385), Ambrose was ordered to appear before the council. He obeyed, accompanied by a tumultuous crowd of people; and the affrighted ministers of Valentinian, instead of pronouncing a sentence of exile on the bishop, humbly requested that he would interpose his authority to protect the person of the emperor, and to restore the tranquillity of the capital. Notwithstanding the tumult and clamours of the people, the bishop persisted in his refusal, and the court proceeded to the exercise of power. Orders were given to the officers of the household to prepare, first, the Palatine church, and afterwards the Basilica, for the immediate reception of the emperor and his mother; but it was found necessary to defend them by a strong guard from the insults of the people. The Arian ecclesiastics, who ventured to throw themselves in the streets, were exposed to the most imminent danger of their lives; and Ambrose had enjoyed the merit and reputation of rescuing his personal enemies from the hands of the enraged multitude; but while he laboured to restrain the effects of their zeal, the pathetic vehemence of his sermons continually inflamed the angry and seditious temper of the people of Milan.

The character of Eve, the wife of Job, of Jezebail, of Herodias, were indecently applied to the mother of the emperor; and her desire to obtain a church for the Arians was compared to the most cruel persecutions which Christianity had endured under the reign of Paganism. The prelate was supported, not only by the populace, but by the most respectable citizens; and the court, finding violent measures to be ineffectual, had recourse to the milder method of persecution, and solicited Ambrose to restore peace to his country by a timely compliance with the will of his sovereign. He resolutely replied, "if you demand my patrimony, which is devoted to the poor, take it; if you demand my person, I am ready to submit; carry me to prison, or to death, I will not resist; but I will never betray the church of Christ. I will not call upon the people to succour me; I will die at the foot of the altar rather than desert it. The tumult of the people I will not encourage; but God alone can appease." In his sermons he affected the exclusive power of the catholic bishops over the churches, and expressly denied the right of the emperor even to the use of a church for himself. Valentinian and his court were not disposed to submit to this ecclesiastical tyranny. An attempt was made for feizing the Basilica; and a body of Goths, urged by their Arian principles and ferocious spirit, advanced towards the church. On the threshold they were met by the bishop, who, thundering out a threat of excommunication, asked them, by what authority they presumed to invade the house of God? Superstitious terror held the barbarians in suspense: and the emperor was persuaded to leave the cathedrals in possession of all the churches of Milan, and to dissemble, till a more convenient season, her intentions of revenge. The mother of Valentinian, however, could never forgive the triumph of Ambrose; and the royal youth uttered a passionate exclamation, that his own servants were ready to betray him into the hands of an infidel priest. This temporary triumph of Ambrose was succeeded by an edit of general toleration in favour of those who professed Arianism, and by a sentence of excommunication, enjoining the prelate to leave Milan, and to cluse the place of his exile as well as the number of his associates. This sentence was refilled by the bishop, and his refusal to obey it was supported by the unanimous concurrence of his faithful people, who guarded his person and his palace. He devised various expedients for securing and increasing their attachment. By his bounty to the poor he formed a train of indigent persons; by introducing into Italy from the east the alternate or repromonitory plaudits, he aided the public devotion; and by alluding to exciting characters and circumstances in his discourses and commentaries upon the scriptures, he increased the popularity which was annexed by his profession of the times to his religious and episcopal character. Pious frauds and pretended miracles served only to augment the effect and elevation with which he was regarded by the credulous multitude. The contending prelate was fortunately directed by a dream to the discovery of the remains of two martyrs, Gervarius and Protasius, which had been under the pavement of the church for 300 years. Two perfect skeletons were found, with the heads separated from the bodies, and a plentiful effusion of blood. These holy relics were presented with solemn pomp, to the admiration of the people; and many miracles were wrought on the bodies and diseased persons who touched them, and one recovered his sight by touching the bier on which the bodies were deposited with his handkerchief. Ambrose appealed to these miracles in his sermons, and the people believed them to be real. The incredulity of the Arians, and the decision of Julitta and her court, were reproached and condemned; and the miracles were attested not only by Ambrose himself, but by Augustine, and Paulinus, who were then resident in Milan. Dr. Cave, relying on these testimonies, expresses his firm belief of their reality, and says, "that God suffered them to be wrought, at this time, on purpose to confront the Arian impieties." Such were the talents of Ambrose and the general estimation in which his character was held, that his affinity was repeatedly solicited in times of public exigence and danger; and it ought to be recorded to his honour, that he surrendered his private resentment to the public good, and served his country with fidelity and ardour. After the assassination of Gratian in 383, Ambrose was deputed by Valentinian on an embassy to Maximus, and contributed by his authority and eloquence to check the ambition of the tyrant, to dissuade him from passing the Alps, and thus to protect the peace of Italy. In 387 he undertook the same office; and if the council of Milan had availed themselves of the information given them by Ambrose on his return from an unsuccessful embassy, they might have been guarded against the perjury of Maximus, and Italy might possibly have escaped the defection which soon followed. The conqueror, however, entered Milan in triumph; Julitta and her son Valentinian fled precipitately.
ceptately from the country, and put themselves under the protection of Theodotus, the emperor of the East, in the post of Thebailonica; but Ambrose remained resolutely at his post, and during the depredations of a victorious army, humanly ordered the church-plate to be sold, and the money to be distributed among the unfortunate sufferers. After Theodotus had restored Valentinian to the kingdom in 388, he received information that the monks and populace of Callinicum, an obscure town on the frontier of Poesia, had tumultuously burnt a Jewish synagogue. The magistrate of the province had ordered the bishop, by whose invitation the synagogue had been burnt, either to rebuild it or to repay the damage; and his order was confirmed by Theodotus. Ambrose renounced; representing the toleration of the Jews, as the perfection of the Christian religion; boldly declaring, that he himself, and every true believer, would as eagerly dispute with the bishop of Callinicum the merit of the deed, and the crown of martyrdom; and lamenting, in the most pathetic terms, that the execution of the sentence would be fatal both to the fame and salvation of Theodotus. Besides this private admonition, he publicly addressed the emperor from his pulpit, nor would he content to offer the oblation of the altar, till he had obtained from Theodotus a solemn and positive declaration, which secured the impunity of the bishop and monks of Callinicum. After an interval of five years, and at a distance from Ambrose, his spiritual guide, Theodotus, tolerated the Jews, and condemned the destruction of their synagogue. How different were the feelings and conduct of Theodotus and Ambrose on another occasion! The tolerant emperor, incensed by the conduct of the populace at Thebailonica, who had murdered Botheric, and several of the principal officers of his army, and irritated by the sagacity of his minister Rufinus, issued a general order for the massacre of the inhabitants. The promiscuous carnage continued three hours, without discrimination of strangers or natives, of age or sex, of innocence or guilt; the most moderate accounts flate the number of the slain at 7000; and it is affirmed by some writers, that more than 15,000 victims were sacrificed to the manes of Botheric. "A foreign merchant, who had probably no concern in his murder, offered his own life, and all his wealth, to supply the place of one of his two sons; but while the father hesitated with equal tenderness, while he was doubtful to clime, and unwilling to condemn, the soldiers determined his fate, by plunging their daggers at the same moment into the breasts of the wretched youths." Ambrose, on the other hand, though unyielding and intolerant on occasion of the slightest religious differences, heard the relation of the massacre with horror and anguish; reproached Theodotus with the enormity of his crime; admonished him not to receive the holy eucharist with hands that were still polluted with the blood of an innocent people; and implored him in his approach to the church of Milan, declaring to his sovereign in the tone and language of an ambassador from heaven, that private censure was not sufficient to atone for a public fault, or to appease the justice of the offended deity. When Theodotus replied, that David, the man after God's own heart, had been guilty both of murder and adultery, the undaunted Ambrose rejoined, "you have imitated David in his crime; imitate then his repentance." After a delay of eight months, Theodotus was absolved and restored to the privilege of communion; but in the interval he appeared, stripped of the ensigns of royalty, in a mourful and suppliant posture, in the church of Milan, soliciting the pardon of his sins, and he signed an edict enjoining a space of 30 days before any sentence of death or confiscation, and its execution. After the affiliaction of Valentinian, A.D. 392, the empire of the West was usurped by the ignoble Eugenius; but Ambrose, with a laudable resolution, refused to enter into alliance with the usurper, and withdrew from Milan; but when the empire was regained by Theodotus, he generously interceded with the emperor for the pardon of the adherents of Eugenius. Ambrose did not long survive Theodotus, whose funeral obsequies he performed; but after a short illness, in which his mind was perfectly composed, and which afforded him an opportunity of declaring to his friends, "that he had not conducted himself so among them as to be either ashamed to live or afraid to die," he departed this life in April, A. D. 397.

Many fabulous particulars are related concerning Ambrose, which are not worth minutely recording, and which the allowable scepticism of the present age will not admit. Such are the stories of the swarm of bees that settled upon his face, when he was an infant in the cradle; of the paralytic woman, who was instantaneously cured, when he was praying by her bedside; of the two Arians, who having afflicted him, were instantly thrown from their horses and killed; of the globe of fire, which covered his head in his last illness, and illuminating itself into his mouth, left his face white as snow; and of the voice, which proclaimed in the hearing of a bishop, just as he was expiring, "arise, and hasten to him, for he is departing." These tales are gravely related by Paulinus, Dr. Cave, and others; but they will claim little credit. Of his general character, it will be sufficient to say, that his most partial advocates cannot acquit him of dishonest artifice, arrogance, and intolerance; and that his most prejudiced enemies cannot deny him the praiseful firmness in avowing his sentiments, and firmness in the performance of his ecclesiastical offices, liberality to the poor, generosity in his conduct towards his enemies, and zeal in the cause of humanity. With energy of mind he combined a great degree of tenderness and sympathy, and in his general conduct he was virtuous and amiable, except on occasions when he was moved by professional ambition or religious bigotry. As a writer, many of his sentiments will now be thought absurd, trivial, or ludicrous; his style is coarse and affected, and somewhat resembling that of Seneca. "Ambrose," says Mr. Gibbon, "could do better than he could write; his compositions are defective of taste and genius; without the spirit of Tertullian, the copious elegance of Lactantius, the lively wit of Jerome, or the grave energy of Augustin." The writings of Ambrose are numerous; but many of them are little more than transcripts from the Greek fathers, particularly Origen. Their chief object is to maintain and establish the faith and discipline of the Catholic church; or recommend perpetual celibacy as the summit of Christian perfection. One of the most valuable is his book "De Officiis," intended to explain the duties of Christian ministers, formed on the model of Cicero's "Offices." In his "Commentaries on the Scriptures," he chiefly follows the absurd method of allegorical interpretation; his "Epistles" throw much light on the history of his life and times. The most accurate and complete edition of his works is that of the Benedictine monks, in two volumes, folio, in 1688; reprinted in 1699. Ambrose appears to have received all the books of the New Testament, which we receive, without any other. For in his works he does not pay any particular regard to the writings of Barnabas, Clement, or Ignatius, or to the recognitions, or constitutions. Hence we may reasonably conclude, that these writings were not esteemed of authority by himself.
himself, or other Chrllians at that time. Cave's H. L. vol. i. p. 261. Gibbon's Hist. vol. v. p. 38–78. Lard- 

AMBROSE, a monk of Camaldoli, was born at Portico, near Florence, studied Greek under Emmanuel Chryfolos, at Venice, and entered into the order of Camaldoli at the age of 14 years. He was made general of the order in 1431, after having lived in it 30 years; at the council of Basil, to which he was deputed by Eugenius IV., he defended the authority of the papal see; at the councils of Ferrara and Florence he displayed equal ardour against the Greeks: and at Florence he was employed to draw up the articles of union between the Latin and Greek churches. The Greek oration, which he addressed at Ferrara, in 1437, to John Paleologus, emperor of Constaninopole, was much applauded. He was much esteemed by Cosimo de' Medici, who had his letters collected into a volume, that has been kept in the library at Florence; and by Paul Jovius, he is represented as a person who united piety with good humour, and who was so free from envy, and from a spirit of contradiction, that when he endeavored to reconcile Fuggerius with Lau- rentius Valla, he declared to them, that they acted neither as true men of letters nor like Christians, since they disregarded the dignity of the sciences by their vitriolic writings. Am- brose died, on his return from the council of Florence, in the year 1439, and his remains were deposited in the oratory of Camaldoli, without any epitaph or ornament. He collected a very large library in the convent of St. Mary de Angeliis, where he left behind him several transla- tions of Greek authors; such as those of Dionysius Areo- pagita de Caelesti Hicercarchia, Manuel Calecis against the errors of the Greeks, Palladius's Life of Chryfolon, Anchora of Gaza's Theophrastus, S. Ephrem's Sermons, Diogenes Laerius's Lives, &c. He also wrote, "Hodiurporicon," or a Journey through Italy, in 1431, to visit several monas- teries and nunneries of his order, and to correct their abuses; published in 4to. in Florence, in 1681; and "Le- tters," above-mentioned, which have been inserted in the third volume of Marten's and Durand's "Veterum Scrip- torum et Monumentorum Collectio." Paris, 1722, fol. some of which contain hints concerning the lives and char- acters of the learned men of his time. Gen. Dict. Cave's H. L. vol. ii. p. 155.

AMBROSE, ISAAC, an English Presbyterian divine, was the son of a clergyman, and descended from the Ambroses, of Ambrose-hall, in Lancashire. In 1621, he was admitted into Brazen-nose college, in Oxford, where he took a degree of bachelor of arts; and he afterwards took holy orders, and officiated in the church of England, but he obtained no preferment. In 1641, he left the establishment, joined the Presbyterian party, took the covenant, and preached first at Gartham, and afterwards at Palfon, in his native county. His zeal against the established clergy re- commended him to the office of assistant to the commissi- oners for ejecting such as were called candalous and ignorant min- isters and school-masters. It was his custom to retire for a month every year into a hut in the woods for the advantage of solitude and religious meditation. He anticipated his death for some time before it occurred, and took leave of all his friends at their own houses. He then died suddenly, as it is supposed, of an apoplexy, in 1634, at the age of 72. His works, written in the truly puritanical style and spirit, are numerous. They are entitled "Prima, Media, et Ultima; or Regeneration, Sanctification, and Meditations of Man's Misery and God's Mercy, &c." 1682 and 1685, Lond. "Looking upon Jesus," 1659, 4to. Lond. "War Vol. II. with devils, ministration of and communication with angels," printed with the former. Biog. Brit.

AMBROSE, St. CUL OF HEAVEN, in Geography, lies on the west coast of Africa, south-west of the Cape of Good Hope. The St. is long. 15°.

AMBROSE.—St. Amphiboe in the West, by the Italians called al nemo, is an order of religious, confirmed in 1431, under the rule of St. Augustin.

The monks of St. Amphiboe al nemo wear the image of the faint engraven on a little plate, and make use of the Ambro- 

sian office.

In the province of Berry, in France, the titled cultus of St. Amphiboe is also given to the canons regular of St. Aug- 


tine, because their abbey at Bourges is dedicated to St. 

Ambroise de Cahors.

AMBROSIA, in the Heathen Theology, &c. a delicious kind of food, on which the gods were supposed to feed.

The word is compounded of the primitive particle α, and άβρος, mortals, because it rendered those who fed on it im- mortal, or because it was the food of the immortals.

Lucretius, pulling the poetical gods, tells us, that ambrosia and nectar, of which one is the meat, and the other the drink of the gods, were not so excellent as the poets describe them; since these deities would leave them for blood and fat, which they come to suck from the altars like flies.

But though the ambrosia is commonly represented as the solid food of the gods, by way of contradiction from the fluid, which was called nectar; yet the apppellations are sometimes inverted, and the name ambrosia given to the drink of the deities, as that of nectar to the meat.

Wedeeus has a dissertation on ambrosia and nectar, wherein he shews, that the term is sometimes used to denote honey, sometimes wine, sometimes perfumes, and particularly ambergis; sometimes the method and ingredients for em- 

balming and preserving dead bodies from putrefaction, and sometimes also for a plate of unchangeableblessing or immortality.

AMBROSIA is also a splendid kind of title given by some phycicians to certain aetherialpompositions of extraor- 


dinary virtue. In this sense ambrosia, αμβροσία, amounts to much the same with <i>αμβροσία, θεομορφία</i>, as being supposed to conducte to immortality. This name was particularly given to a famous antidote of Philip of Macedon against all poisons, bites, and stings of venomous creatures, as well as many internal diseases.

AMBROSIA is also used for a pure spiritus kind of med- 


dicine, artfully extracted from the gros elementary parts of a Lody, and which being administered in the smallest dose is of confiderable virtue, and may be taken without disgust or inconvenience. In this sense ambrosia amounts to much the same with what we otherwise call quintessence. Nic. Abr. Trammes has a treatise on the preparation of these ambrosia. Ambrosiopea, Ludg. Bat. 1628, 2mo. Francof. 1630. 4to.

AMBROSIA is also used by some of the Ancient Writers to express what they judged to be the food of the bees.

This substance is by some taken to be a gros or solid honey, and is contradistinguished from the liquid or puer- 


tar, which is denominated nectar.

The ambrosia will not keep, and, if not speedily spent, corrupts and turns sour, making what is sometimes called comb, or flowing, or, after the Greeks, ἱονάσκει; highly offensive and pernicious to the hive. See Pain des Abeilles.

AMBROSIA, in Antiquity, denotes a feast celebrated in Ionis, and in almost all the countries of Greece, in honour of Bacchus, at the time of vintage.

The ambrosia were also denominated ebon and lament.

They
They were held in the month called Lenaeon, consecrated to Bacchus.

Amphrosia, in Mythology, the daughter of Atlas, was one of the Heroes.

Ambrosia, in Botany, a genus of the monotypic genus Parietaria (Parietaria monogyna, Gmelin) class and order of the natural order of Convolvulaceae, and Caryophyllaceae of Jullien; its characters are as follows. Male flowers compound: the calyx is a common, one-leaved, flat perianthium, of the same length with the florets; the corolla compound, uniform, tubular, equal, and hemispherical; the proper, one-petalled, tubulous, funnel-shaped, erect, quinquelabiate (trifid, lamin.) the stamens have very small filaments, anthers erect, parallel and acuminated; the pistil has a filiform style, of the length of the filaments, stigma orbiculate and membranaceous; the receptacle common, scarcely any, naked. Female flowers, below the males, doubled: the calyx is a one-leaved, acuminated, entire, permanent perianthium, the belly five-toothed, and one-flowered: no corolla; the pistil is a germ ovate, in the bottom of the calyx, filiform, of the same length with the calyx, stigmas two, stigmatic, long, and divericate; the pericarpium a fuscous nut, formed from the calyx hardened, one-celled, not opening, crowned with the five acuminate teeth of the calyx; the style filiform and round. There are five species, viz. 1. A. trifida, trifid-leaved A. "with three-lobe ferrate leaves." There is a variety, B. A. gigantea inodora, fol. asperis trifidiis. Ray. Hill. This species is a common annual weed in North America, growing often eight or ten feet high, and in a rich moist soil, spreading out into many branches; the flowers are more conspicuous than those of hemp: cultivated in 1669 by Mr. C. Bobart. The fort common in gardens has three-lobe leaves; but the larger variety B. has the lower leaves five-lobe. 2. A. elation, tall A. "with leaves pinnatifid, racemose panicked, terminal, and smooth." This is an annual, herbaceous plant, from two to three feet in height, upright, and branched; male flowers more numerous, approximating and nodding; the female flowers fewer, sessile, from three to five, aggregate: a native of Jamaica, in barren, sandy, rocky situations, by river sides, in the southern part of the island; flowers there from February to June; with us in July and August; cultivated in Kew garden by Mr. S. Doody, in 1665. It has the appearance and taste of wormwood; and the seeds have been imported from Virginia and Carolina, as well as from the West India islands. 3. A. artemisifolia, margin-toothed A. "with bipinnatifid leaves, the first leaves at the origin of the branches quite entire;" differs from the second in having the spikes of the flowers axillary; the racemes are lateral, and not terminal as in the preceding species; the primary item about a foot high, is more diffused, and the branches four feet long; a native of North America; cultivated, in 1759, by Mr. Miller. 4. A. maritima, see A. "with pinnatifid leaves, spikes solitary, hairy and fistulose;" rises about two feet high; the leaves, when handled, emit a strong odour; the spikes of the flowers are axillary; the spike does not fit on a long peduncle as in the preceding species; grows naturally in Cappadocia, Tuscany, and the county of Nice, on sandy shores; cultivated in Kew garden in 1750. 5. A. arboriforme, tree A. "with pinnatifid, bifurcate leaves, racemes solitary and terminating, and item shrubby;" a native of Peru, grows to the height of 10 or 12 feet; the spikes and flowers are produced at the extremities of the branches, and the female flowers grow in small, separate clusters. The fifth species of Gmelin’s Linnaeus is A. sinpleiifolia, with simple, lanceolate leaves, and axillary, subfoliaceous leaves. Walt. Fl. Carol. p. 231.

Ambrosia.—The seeds of the first species, sown in Spring, will remain till the following Spring; and when the plants come up, they may be transplanted into another and another hot-bed, allowing to each plant a square distance of three or four inches, watering and shading them till they have taken root, and afterwards exposing them to the air in warm weather, and well watering them: when the plants are pretty strong, they should be taken up with balls of earth to their roots, and planted in large pots filled with light earth, towards the latter end of May they should be placed abroad with other hardly, annual plants; they will flower in July, and their seeds will ripen in September. The third fort may be cultivated in the same manner. The seeds of the fourth fort should be sown in a warm border in Autumn; and when the plants are large in the Spring, they should be transplanted into a warm border of poor ground; the bell method for obtaining good seeds, is to plant some of them in heme-rubbit; the plant has not much beauty, and is admitted into gardens merely for variety. The fifth fort may be propagated by cuttings or seeds; if the former are used, they should be planted in a shady border in any of the summer months, and frequently watered, in four or five weeks they will have good roots, and should be taken up and potted; this fort is hardly enough to admit of being exposed to the open air in Summer, and in Winter, if it be sheltered in a common greenhouse, it will live several years; the seeds that are sown in the Spring will seldom come up the same year, but those which fall, or are sown in Autumn, will come up the following Spring. Martyr’s Miller.

Ambrosia. See Artemisia and Cochelearia.

AMBROSIA, in Ornithology, a species of Hesperus, or swallow, that inhabits Bengal, and frequents particularly strong of ambergris. It is of a greyish brown colour, bill blackish, legs brown. Gmel. Linn. Syll. The length is five inches, and an half, bill half an inch, the plumage dark as on the head and quills, and the tail very forked. This is the hisardne riparia Bengaleensis of Brissin. Av. v. 158. No. 13. L’Hirondel ambrée de Buffon. Ort. vi. p. 612.; and ambergris swallow of Lath. Gen. Syn. iv. p. 568.

AMBROSIA. It is uncertain whether this should be considered a distinct variety of the preceding species, or merely a sexual difference. Dr. Latham describes it as “cineraceum subtilis cinero-alba, cauda elongata maximo forciata;” (Ind. Orn. tom. ii. 572.) general color inclining to grey, beneath cinereous white, tail long, and greatly forked; its length is five inches. This was observed in the collection of Sir Joseph Banks, Bart. after the former had been described, and was published in the supplement of the Gen. Syn. It is supposed to inhabit China.

AMBROSIANA, or office, denotes a particular office or formula of worship, used in the church of Milan, which is sometimes also called the Ambrosian church.

The denomination takes its rite from St. Ambrose, archbishop of Milan, in the fourth century, who is usually supposed to have been the author of this office. Yet some are of opinion the church of Milan had an office different from that of the Roman and other churches of Italy before the time.
time of that father. In effect, till the time of Charlemagne, each church had its several office; and when in after-days the pope took upon him to impose the Roman office on all the other churches of the West, that of Milan sheltered itself from the imposition, under the name and authority of St. Ambrose; from which time the phrase Ambrosian rite has obtained, in contradistinction to the Roman rite.

The public library of Milan is also called the Ambrosian Library.

We also meet with the Ambrosian chant, or long.

AMBROSIAN CHANT. There are few writers on ecclesiastical music who do not speak of the Ambrosian chant, and of its being different from the Gregorian; but no satisfactory account has been given of their specific difference; nor was I able (says Dr. Burney) in hearing the service performed at the Duomo in Milan, (where he was for the first time present in all its purity), or by a perusal of the Missals, or other books on canto fermo published in that city, to discover any considerable deviation from the plain long used in the service of other cathedrals in France or Italy, where the Gregorian chant is said to be the only one that is in use. The truth is, that there are no vellages of the Ambrosian chant remaining, sufficient to ascertain its peculiar character. The fragments of it that Dr. Gafurius has inserted in his Pratica Musicae are very suspicious, not only as they have a much more modern appearance than even the ancient Gregorian chants that are come down to us, but on account of the number of modes in which they give them, which amount to eight; whereas all writers on these subjects agree in saying that St. Ambrose only used the four authentic modes, and that the four plagals were added afterwards by St. Gregory. Those who pretend to know the difference between the Ambrosian and the Gregorian canto fermo, tell us, that it is louder, higher, and of greater compass—fortior, durior, et magis extensia; but this conveys nothing to the mind of a musician as to the difference in the melody of the two chants. See Gregorian Chant, Canto Fermo, and Plain Song.

AMBROSIN, in Middle Age Writers, denotes a coin struck by the lords or dukes of Milan, wherein was represented St. Ambrose on horseback, with a whip in his right hand. The occasion of this coinage is said to have been a vision of that saint, who appeared to the Milaneze general in 1339, during the time of a battle.

AMBROSINIA, so named in honour of the two brothers Bartolomeo and Hyacintho Ambrosini, for 32 years professors of botany at Bologna, in Botany, a genus of the class and order of gymnandria polyandra of Miller, monandria monandra of Schreber, polyandra monogynia of Swartz, and polyandra polygynia of Ginian of Linnaeus, of the natural order of pipe-rice, and aroids of Jussieu: its characters are, that the calyx of the males is a fopathe, one-leaved, convolute, convolute at the base, and converging at the tip, partition membranaceous. (Spadix Bats), divided into two cells communicating at top, i.e. corolla; the stamens have no filaments; the anthers are very many, solitary, within the hinder cell of the fopathe, in the upper part of the partition, digested in a distinct order; the stamens are two, roundish, concave, at the base of the anthers. The calyx of the female is a fopathe common with the males; no perianthium; the pistillium has a germ in the anterior cell of the fopathe, and the lower part of the partition, solitary and roundish; the style cylinrical, shorter than the fopathe; the stigma obtuse; the pericarpium a roundish one-celled capsule; the seeds are very many, ovate and netling. There is one species, viz. A. Bats, ariforun of Monifon, Ray, and others, a native of Sicily near Palermo, first found, described and figured by Boccon, requiring the protection of a green-house, and capable of being increased from the root.

AMBROSIUS, Aurelianus, or Aurelius Ambrosius, in Biography and History, a famous general, and afterwards king, of the ancient Britons, was of Roman extraction, and is supposed to have been the son of one of the kings elected by the Britons after the Romans had left the island. He was educated at the court of Aldern, king of Armorica, and sent over at the request of the Britons with 10,000 men under his command, to affult them against the Saxons, whom Vortigern their king had invited into Britain. His successes in this expedtion was so considerable, that, after the death or abdication of Vortigern, Ambrosius, probably king of the Damnonii, in consequence of the death of his father, was elected to the pependrenship of sovereignty of all England; which supreme office he exercised with great honour to himself and benefit to his subjeets. During his reign, and under his direction, the famous Arthur obtained several victories, and was eminently successful in retaining the progress of the Saxons among the Northern Britons. Ambrosius, after distinguishing himself by his valour on several occasions, and by his zeal, as it is said, in regulating the affairs of the church, died at Winchester, according to the report of Geoffrey of Monmouth, of poison, administered by a Saxons disguised as a physician, and hired for the purpose by one of the sons of Vortigern, or, according to the more generally received opinion, was killed in a battle fought in 508., against Cerdic, one of the Saxon generals. Geoffrey of Monmouth pretends that Ambrosius built Stonehenge, near Salisbury, in commemoration of 300 British noblemen, who were massacred by the Saxons. Interesting Polydore Virgil says, that this edifice was erected by the Britons as a monument to their general Ambrosius, on the place where he fell in battle, to perpetuate the memory of the illustrious services which he performed for his country. But both these stories are rejected as fabulous by the best antiquaries, though they are by no means agreed as to the true origin of this building. Biog. Brit.

AMBREY, the place where arms, plate, vessels, and every thing belonging to house-keeping, were formerly kept. Hence, probably, the ambrey at Westminster was so called, because formerly set apart for that use; or rather, from ambroyery, a house adjoining to an abbey, in which the chariots were laid up and distributed to the poor. The word is still used in Scotland, in the same sense.

AMBRYM, or Ambain, island, in Geography, one of the New Hebrides in the south Pacific Ocean, Slat. 16° 9' S. Long. 165° 34' W. It has a volcano, and is about 50 miles in circumference.

AMBrysus, or Ambryssus, in Ancient Geography, a town of Greece in the Phocide. M. d'Anville places it between two chains of mountains, west of Lebadea, and north-west of Anticyra. It is called by Pausanias Amphyrrus. This town was separated from Delphi by Mount Parnassus; and it was fortised by the Thebans, in their war with Philip of Macedon. Near it was a temple of Diana Diaitynna, to which the inhabitants paid peculiar homage. Her statue was of black marble. Pausan. lib. x. c. 36.

AMBUBAJE, in Antiquity, a kind of wanton minstrels about Rome, who lived by playing on the flute, dancing in places of resort, and prostituting their bodies for hire.

Authors speak as if there had been a regular college, or community of ambubajes, and that these were the same with
what were otherwise called *tiline*. Thus Horace, fat. i.
speaks of

“...Ambubajarium collegia, Pharmacopoea...”

Some suggelt that the ambubaj was one, of the male kind, only dispensed in the habit of women.
Antiquaries have been greatly divided about the ambubaj: some hold them to have come to Rome out of Syria; others suppose them to have been Roman women, though clothed by a name of Syriac origin.

Torquatus, Tummus, and Pulianus, derive the name from ambu, or am, an old Latin preposition, denoting circum, about, and bait, a delicious place near Naples; and maintain, that the ambubaj were a kind of pageants, who frequented the baths of that city. Cruquius is of a different opinion, taking the word ambubaj to have been used for ambubaj, and primarily to denote a feller of ambubaj, as a herb mentioned by ancient naturalists. These fellers of ambubaj, being a kind of empires, their name became afterwards applied to all charlatans, and quacks.

Others say, that ambubaj is a Syrian word, and that in the Syriac language, it denotes a flaut, or the sound of a flute. From Juvenal it appears, that Syria was famous for furnishing the bell players and musicians. Thus he says, fat. vi. 67.

“...Jam pridem Syria in Tiberim defluxit Orontes,
Et linguam, et mores, et cum tibicinum chordas
Obliquas, neeun gentilia tympana fecit,
Vexit et ad Circum jufias profare puellas.”

Suetonius exhibits the emperor Nero as attended by these Syriac women, and Roman pageants at table; thus, “Cunctatbat non unguem—inter feceorunm totius urbis, et ambubajarnque minilera.” The followers of the profession of female flute-players became so numerous and so licentious at Rome, that their occupation was prohibited in the Theodorian code; but with so little success, that in the time of Julianus, as we are informed by Procopius, the feller of the empress Theodora, who was a flute player, or tibicina, appeared on the stage without any other dress than a flight scarf thrown loosely over her. These performers even became so common in all private entertainments, as well as at public feasts, where they frequently obtruded themselves, uninvited, that towards the close of this reign their profession was regarded as infamous, and utterly abolished.

Hoffman has a discourse on the ambubaj.

AMBUBELIA, in Botany, a name given, by some authors, to wild succyry.

AMBUELLA, or AMBOILLA, in Geography, a country of Africa, in the kingdom of Congo, between the lake of Aquelond and St. Salvador.

AMBULANS, in Entomology, an insect of the Podura genus, described by Linnaeus; it is white, with an extended tail, and lives amongst moths. This is the “Podura terrestris nival,” of Degeer Text. vii. p. 53. n. 6. tom. iii. f. 5.

AMBULANS, a species of Cryptoccephalus, one of the new genera, adopted by Gmelin in the Linnean arrangement, from Geoffroy and Fabricius. This insect is a native of Germany, is black, shining, and has the wing-cases punctured. Fab. et Gmel. It approaches Cryptoccephalus elongatus, very nearly, and the antennae of both species are serrated, but the thorax of the latter is rufous above, and deep, which in the former is black.

AMAVANT, or AMBULATORY, a name formerly given in France to those commissioners or clerks of the king’s farms, who had no settled office, but visited all the offices within a certain district, to see that nothing was done in them against the king’s right, and the interest of the farm.

AMBULANT is also used to denote those brokers at Amsterdan, or exchange agents, who have not been sworn before the magistrates. They transmit brokerage bundles, but their testimony is not received in the courts of justice.

AMBULATION, or walking. See Exercise.

AMBULATION, in Physics, is used by some for the spreading of a gangrene or mortification.

AMBULATORY, in Entomology, a species of Lamin, figured by Petiver, Gazap. tab. 37. fig. 6, and described by Fabricius. The anterior part of the thorax is armed on each side with two spines, and the body is clouded with circitous and chafnatt. It is properly a cernbax of Linneas. See Lania.

AMBULATORIUS, a species of Ichneumon, with a yellowish scutellum, and spotted thorax, the second joint of the abdomen ferruginous brown, the margins of the others white. This insect is very rare, it inhabits Great Britain, and was first described by Fabricius in the Species Insectorum, from a specimen in the cabinet of Sir Joseph Banks, Bart. The species was known to Linnaeus, and his last editor Gmelin has adopted the above Fabricius specific character. The head of this creature is black, the antennæ yellow beyond the middle, the thorax is black, with a yellowish line in the anterior part, and a spot of the same colour before the base of the wings: the abdomen is black, except the ferruginous or second joint, and the white margins of the third, fourth, and fifth.

AMBULATORY, formed from ambulate, to walk, a term anciently applied to such courts, &c. as were not fixed to any certain place; but held sometimes in one place, and sometimes in another. In opposition to stationary courts.

The court of parliament was anciently ambulatory; so also were the courts of king’s bench, &c.

We sometimes also say, in a legal sense, a man’s will is ambulatory to the time of his death; meaning, that he has it always in his power to revoke it.

AMBULIA, in Botany, a genus of the duynamia angioperina class and order; the essential characters of which are, that the calyx is quinventated, the corolla tubulose, quadrid, with unequal segments; and the capsule pentagonous, single celled, and single-seeded. There is one species, viz. A. monosperma of Gmelin, or A. aromatica of Linnæus, which represents the calyptrium as polypermerous. This plant, particularly described by La Marcé, (Encyc. tom. i. p. 18.) grows in Malabar, in a sandy and watery soil, and appears to be annual. All its parts have a sweet and aromatic smell, resembling that of pepper, when it is green. Its taste is bitter; and it is administered in a decoction, for allaying fevers, and in four milk in cafes of vertigo. La Marcé suggests that it is the mangle-nari of Rhed, and the tercinthiana of Rumphius.

AMBULLI, in Mythology, a name given at Lacedæmon to Jupiter, Minerva, Calter, and Polux, where they had altars before a large portico, in which the inhabitants were accustomed to walk. They are said to have derived their name from *aphoros*, delay, because it was thought that those deities had it in their power to retard the instant of death.

AMBULON, in Botany, a tree which grows in the island
of Ambrustus, in Entomology, a species of Phalaena of the notus family. Thorax eroded; wings incumbent, grayish-brown, with three yellowish bands, an annule in the middle, and an undulated streak behind. —This moth is produced from a naked brown larva, with white lines. The antennae are ferruginous, white at the base, head, and thorax reddish gray. Posterior wings white, tips brown. Inhabits Austria, on Lichens parichum Fabricius.

AMBLER, or Ambuscato, in Surgery, a solution of continuity, caused by the application of heated substances. See Burn and Scald.

AMBUSTUS, in Ornithology, a species of Falco. The body is pale tawny, front of the head between the eyes and bill naked, cere large, legs bluish. Gym. Lin. This is the tawny vulture of Brown and Latham. The bill is dully, short and thick, cere large, and beak with bristles, the chin bearded with a tuft of long slender feathers: head, neck, breast, belly, and thighs, pale tawny; covert of the wings intermixed with brown; tail dirty white, with brown bands: legs slender, bluish claws, long and slightly bent. The length of this bird is two feet four inches; it inhabits Falkland Islands.

AMBY, in Geography, a town of the Afnurid Netherland, in the province of Limburg, opposite to Maastricht, and on the east side of the river Meuse.

AMBUVA. See Birei Broun.

AMCITCHE, one of the Fox islands in the North Pacific Ocean. N. lat. 53° 22'. E. long. 178° 14'.

AME, soul, is made a musical term by the French, for feeling and expression. As to its effect in the aires tendres of their old music, it degenerated into over-charged tenderness, displeasing to all ears but their own.

AMEA, in Botany, a name given, by the natives of Guiana, to a plant which they use in bleeding at the nose, drying and powdering the leaves, and humming up the powder. It seems to be of the family of the plant called poincirivis, by Sir Hans Sloane, in his Jamaica Catalogue. Its leaves are large and atated, and of a beautiful green, even when dried. Phil. Transl. N° 232.

AMEDABAD, in Geography. See AMHEDABAD.

AMEDAN, a town of Persia in the province of Taberlan, 20 leagues S. S. W. of Amol.

AMEDEL, Amedani, in Ecclesiastical History, formed of the Latin amans Deurn, q. d. lover of God, or rather of amans Deus, beloved of God, a congregation of religions in Italy, instituted in 1430.

The Amedani wore a grey habit, and wooden shoes, had no breeches, and girt themselves with a cord. They had twenty-eight convents, and were united by Pope Pius V. partly with the Cistercian order, and partly with that of the Scolonci, or wooden-shoe warriors.

AMEDEUS, in Biography, a monk; was bishop of Lausanne about the middle of the 12th century. His "Sermon in praise of the Virgin Mary," printed at Bâle in 1557, and at Antwerp in 1630, are included in the Bibliotheca patrum. Dupin.

AMEDAGUR, in Geography, a country or Soubail of Hindostan, bounded on the north by Candeish and Malwa,
on the west by the Gatte or Balagat mountains, on the south by Beijpour or Vihanpour, and Tellngana, and on the call by the province of Barar.

AMENAGUR is also a capital of the above Souabh, now called Dowatabad, situated at the foot of the Balagat mountains, 105 miles N.W. of Vihanpour, and 62 E. of Poona. This city has been generally placed 59 miles S. E. of its true position. N. lat. 17° 6'. E. long. 74° 32'. See AHNENAGUR.

AMED. See DIABERIS.

AMEENABAD, or MINNABAD, a town of Hindoostan, in the country of Lahore; 30 miles north of Lahore. N. lat. 31° 30'. E. long. 72° 30'.

AM-EIS, a town of Germany, in Carinthia, on the Drave, five miles W. S.W. of Lavamund.

AMELIA, in Zoology, a species of Lacerta, having a verticillated long tail, thirty abdominal scales, and a kind of collar consisting of a double wrinkle beneath. Lit.

The amelina inhabits America. Dr. Shaw says it is principally found in South America, but that it is said to occur in some parts of Asia and Africa. "This creature varies considerably in colour, but is commonly blue or bluish green above, with somewhat irregular variegations of black and white, which are sometimes disposed in streaks, and sometimes in spots or patches; and commonly in such a manner as to leave several white, or pale blue round spots scattered on different parts of the body and limbs; the under parts are dusky, with more or less of a bluish cast, and often marked here and there with small whitish spots."—Dr. Shaw. Zool.

AMELANCOURT, in Botany. See CHIONANTHUS and MESELUS.

AMEL, see ENAMEL.

AMELANDT, in Geography, an island in the German Ocean, about four leagues long, and one wide, situated about two leagues north from the main of Frisia. N. lat. 53° 30'. E. long. 6° 14'.

AMELBARÉN, a town of Germany, in the circle of Westphalia and bishopric of Munster, six miles south of Munster.

AMEL CORN, in Agriculture, the same with SPLIT-CORN.

AMELIORATING SUBSTANCES, in Agriculture, are such, either of the animal or vegetable kind, as, when applied to land, render it more fertile and productive.

AMELIORATING CROPS, are such as are supposed to improve the lands on which they are grown. Most of those plants which have a large stem and flabby leaf are thought to render the soils on which they are produced more fertile. Carrots, turnips, artificial geries, and many other green vegetables, are in general considered as ameliorating crops; but it is probable, that all sorts of vegetables, carried off the land, are in some degree or other exhausters of the soil; and that green crops, such as have been just mentioned, are only left so, than such crops of grain or other vegetables as contain large proportions of gluten, or vegetal-animal matter in their compositions. The improvement of lands, therefore, by what are termed ameliorating crops, in a great measure probably depends either upon the culture, which the ground receives while they are growing, and the returns which they make to it in the way of manure, after decaying, or being consumed by animals, or from their taking up only such sorts of matters as are not necessary to the succeeding crop.

AMEL, in Botany, Karetta-Amelopodi of Rheed, Malab.

is a tree about seven feet high, with a slight stem, and white wood, covered with brown bark. The leaves are opposite, ovate-lanceolate, pointed at the ends, thick, entire, soft, smooth, glossy, of a blackish green above, and greenish below. The flowers are white, and grow at the summit of the branches, disposed in short panicles, and corymbiform. Each flower has a corolla with five oval-pointed petals, opening in a star, thick, white above, and fluted with red lines below; the stamens are five, a little longer than the petals, white, withered anthers, and an ovary with a pubephy lyle, forked at its summit. The fruit is a roundish capsule, of a brownish green colour, glossy, with three cells; but Rheed does not mention its seeds. This tree grows on the coast of Malabar, in sandy-flour soil. It is always green; flowers all the year, and produces mature fruit about the month of August. The decoction of its leaves in water is recommended as a sovereign remedy in colics. Its leaves and roots, boiled in oil, furnish a topic which is said to be efficacious in relieving large tumours. Rheed mentions another species of Amel, which he calls Katto-valuta amolea, somewhat smaller than the former, but little differing from it in other respects; it grows in the mountainous and uncultivated parts of Malabar. La Marec, Encycl. tom. i. p. 129.

AMELIA, in Geography, a county of Virginia, in North America, situated between the Blue ridge and the tide waters, having Cumberland county to the north, Prince George county to the east, and Linnensburg county to the south and west. Amelia, including Nottoway, a new county, contains 18,097 inhabitants, of whom 11,037 are slaves.

AMELIA ISLAND, lies on the coast of East Florida, in America, about seven leagues north of St. Augustine, and very near Talbot island on the south, at the mouth of St. John’s river. It is thirteen miles long, and two broad, is very fertile, and has an excellent harbour. Its north end lies opposite to Cumberland island between which and Amelia island is the entrance into St. Mary’s river, in N. lat. 30° 52'. W. long. 67° 23'.

AMELIA, an ancient AMELIA, a small town of Italy, seated on a mountain in the duchy of Spoleto, and the residence of a bishop, holding immediately of the pope, fourteen miles south of Todi. N. lat. 42° 33'. E. long. 13° 25'.

AMELIUS, GENTILIANUS, in Biography, a Platonic philosopher, was born in Tuscany, chiefly resided at Ape- ma in Syria, and flourished about the year of Christ 263. Having been instructed in philosophy by Lyfian- chus, he became the disciple of Plotinus, and continued with him at Rome 24 years, viz. from the year 246 to the beginning of the year 269. His talents and taste were so similar to those of his master, that he was soon admitted into his friendship, and employed by him in resolving questions proposed by his disciples, and refuting the objections and calumnies of his enemies. Here he commenced an intimate acquaintance with Porphyry, who, during the last six years of his residence at Rome, was his fellow disciple and companion, and who represents him as the most illustrious and laborious of all the disciples of Plotinus. He made large collections from the lectures and disputations of the school, and in a work of his own, consisting of 40 books, he refuted Zosprimus, a Christian heretic, who confounded the doctrines of the gospel with those of the philosophers. He also vindicated his master from a charge of plagiarism, in a treatise " On the difference between the Doctrine of Numenius and that of Plotinus." His works, amounting,
AMELLOIDES, in Botany. See Cineraria.

AMELLUS, a genus of the fragarias polygama super-
flua class and order; of the natural order of composite oppo-
stofoles, and eorymbifera of Joffic: its characters are, that
the common calyx is imbricate, roundish, (scales linear,
preffed close) the compound corolla is radiate, corollots her-
maprodite, very many in the dife, females very many in
the ray, proper of the hermaprodite tubules; one fertile,
female ligulate, lax, two or three-toothed; the fima in
the hermaprodites, have five capillary, short filaments, an-
other cylindrical and tubulous; the pelcillum in the her-
maprodites has an obovate germ, iyile filiform, of the length
of the filaments, fignias two, and filiform; females very
like the hermaprodites; no percarpium; calyx unchanged;
seeds to the hermaprodite lobular, obovate; down capi-
mary, to the females very like the others; the receptacle
chaity. Olb. The teeth in the corollots of the ray are
fearcely vifible. Martyn reckons two; Gmelin and La
Marck three, fpecies. 1. A. Lycbithis, traving A. verbenia
altered of Linn. fpec. edit. 1. chrysantherum Afric-
um of Breyunius, "with leaves opposite, lanceolate, obtufe,
downy, peduncles one-flowered." This fpecies rifes from
two or three feet high, fending out branches on every side,
terminated by flower-flaks, each supporting one violet-co-
loured flower, with a yellow disc, fhapcd like thofe of the
after, and appearing in July or Auguff. The down is vil-
lofe with few rays; a native of the Cape of Good Hope;
cultivated in Kew Gardens, by Mr. Miller, in 1768. 2.
A. umbellatus, umbelled A. solidago villofa, &c. of Brown
Jam. "with leaves opposite, three-nerved, downy underneath,
flowers umbelled." This fpecies has herbaceous, upright,
simple round hairy flems, two or two and a half feet
high; the leaves at first radical, petioled, wedge-shaped at
the base, somewhat decurrent and ferrate, nervcd,
smooth, dark green, white and foft beneath; the flem to-
wards the top generally divided into three branches, each
of which is subdivided into many small flower branches,
forming a fort of umbel; the umbellules have from three to
eight flowers, with linear leaflets, the peduncles an inch
long, each subtending one large yellow flower; the fcales of
the calyx lanceolate, membranaceous, and hoarty; the
feeds obovalical; the down feffile and hoarty; the recep-
tacle bifurte. It has the habit of tufliffoe, and would be
of that genus, if the down were filipitate, and the receptacle
naked. It is connected with the first fpecies by the mildly
chaffs between the florets. It is a native of Jamaica, in
the rocks, woods, and mountains, and flowers there in
Summer. 3. A. tendifolius, fefnder-leaved A. amellus cru-
ticulus, "with alternate linear leaves, and one-flowered
branches." This fpecies is about fifteen inches high; its
flem is woody, and divided at the bottom into cylindrical
branches, hairy, leafy, and generalliy simple; the leaves
one line and a half long, and one line and a half broad, are
straight, linear, soft, pubescent and alternate, the flowers
terminating, the branches are solitary, and resembhe of
the flf fpecies in their form and colour; the fcales of
their calyx are ftraight, very acute, hairy, and almost equal
to one another; the receptacle contains small seeds. The
account of this plant was communicated by M. Sonnerat
to La Marck. It was found at the Cape of Good Hope.
Its wood is yellow. 4. A. carolinianus of Gmelin, "with
opposite, subbifaciate, bifacciate leaves, the peduncles
double, one-flowered and axillary." Walt. Flor. Carol.
p. 213.

The first fpecies is a perennial plant, and may be easily
propagated by cuttings, planted in the shade in the Summer
months, and well watered. The plant should be taken up
with beds of earth, and put in pots, fo as to be sheltered in
winter, under a common frame or in a green house, with plenty
of air in mild weather. The second species may be propagated
by seeds fown on a hot-bed in spring; two or three of
the plants, when they are fit to be removed, should be
planted in pots, and plunged into a hot bed of tan, fo as
to get ripe seeds in the autumn, otherwise the plants will
require a flove in winter. Martyn's Miller.

AMELLOIDES. See Calea and Ericgeron.

AMELUS. See Angelii. See Aster.

AMELOT D.E LA HOUSAYE, ABRAHAM NICHOLAS,
in Biography, was born at Orleans in 1634, and formed
under the president of St. Andre, ambafador at Venice,
who employed him as his secretary. His manner and his
writings were alike as his actions; and as he never rose much
above indigence, he was often indebted to the liberality of
his friends. The events of his life are little known; and
he died at Paris in 1700, in the 7th year of his age. His
writings are numerous, and attractea notice, as he wrote
with freedom on political fubjefts. The principal of
his works, which were written in French, are the following:—
"A Tranflation of Father Paul's History of the Council of
Trent," 4to. 1696, well received, and highly recommended
by the afcertors of the liberty of the Gallican church,
now greatly superuced by that of Courayer; "A Tranflation
of Machiavel's Prince," 12mo. with notes, vindcating that
writer from the charge of having taught afaffination and
poifoning; "A Tranflation of Grattian's Courier," 12mo.
with moral and political reflections; "A Tranflation of the
Annals of Tacitus," with valuable notes of a pofitual kind;
12mo. printed in 1714, with "An Inquiry into the original
Liberty of Venice, translated from the Italian," which gave
great offence to the Venetian fiate; "The Morals of Ta-
citus," extracted from his Annals, 12mo. a work that has
been much read; "Meroirs, Histotical, Political, Critical,
and Literary," a polifhewn work, abounding with fati-
nal anecdotes. Amelot was at one period of his life con-
fined in the Baffle; but the causc of his imprisoned is not
now known. Possibly fome of his free political fritings

AMELOTTE, DENIS, a priech of the Oratory, and a
famous writer among the Roman Catholic, was born at
Saintes, in 1605, ordained priech in 1632, and maintained a
great correpondece with the fathers of the Oratory. He
published at Paris, in 1643, a life of Charles de Gendron,
second superior of that congregation, which contained reflec-
tions
tions on the famous abbey of St. Curat, that
ferred the
ment of the gentle
him to write a libel against the author; but deans ample retaliation, so that he did them greater prejudice than the whole body of Jesuits. The work which principally
to be mentioned is, "The French Translation of the
New Testament," with Annotations, in 4to, 8vo, printed
in 1668, 1697, and 1678. He last object in this translation
was to find expressions more proper and elegant than those
of the former versions, and with this view he obtained the
assistance of Mr. Courant, a protestant, well skilful in the
French language, but ignorant of Greek and Latin, so that
in turning a page he perverted the true sense of the text,
or encumbered it with, for want of being able to consult
the original. In the preface to the first edition he boasted
that he had confecrated the manuscripts of the Vatican, and many
others, but afterwards he confessed that he had never seen
any of them. He also wrote "An Abridgment of Divinity;"
"A Catechism for the Jubilee;" "A kind of Christian
Manual;" (Journee Chrétienne) and "A Harmony of the
Gospels" in 12mo, published in French, in 1669, and in
Latin in 1672. Amelot entered into the congregation of
the Oratory in 1632, and continued with them till his death

AMEN, a scriptural and ecclesiastical term, used as the
conclusion of all solemn prayers, &c., and signifying so be it,
or fait.

The Hebrews had four kinds of amen. That just men
tioned they called amen paf, which was accompanied with
the greatest attention and devotion; in this sense the word
has passed into almost all languages, without any alteration.

Some authors are of opinion, that the word amen is
formed of the initial letters of these words, Adonai, Molach
Neeman, Dominus Rex Fidelis; an usual expression among
the Jews when they would give weight or function to any thing
they said. In effect it is known that to express the words
Adonai Molach Neeman, in the ordinary
way of abbreviations; the rabbins only take the initial
letters, which, joined together, are really the letters of the
word שمس amen.

On the other hand, there are some of their Cabalists, who
according to their usual manner of finding a hidden meaning
in words, which they call notarigion, out of the letters of the
word amen form the whole phrase Adonai Molach Neeman.

Yet it is certain also that the word amen was in the
Hebrew tongue before ever there were any such things as cab-
bala or caballists in the world, as appears from Deuter-
onomy, chap. xxvii. ver. 15.

The primitive of the word amen is the verb amen, which,
in the passive voice, signifies to be true, faithful, constant,
&c. Hence came the noun SHN amen, which signifies
truth. And, lastly, of this noun amen they made a kind of
affirmative adverb, which, when placed at the end of any
phrase, or proposition, signifies, so be it, be it true, I acqui-
sire in it, &c., Thus in the passage above cited from Deu-
teronomy, Moses ordered the Levites to cry aloud to the
people, Curful be he that makes any graven or molten image,
&c., and all the people shall say amen, i.e. yes, may he be
cursed, we define, we agree to it. But at the beginning of
a phrase, as in several passages of the New Testament, it
signifies truly, verily. When it is reddoubled, or repeated
twice together, as is always done by St. John, it has the
effect of a superlative; agreeably to the genius of the He-
brew tongue, and her two daughters, the Chaldee, and Sy-
rine. — In this sense we are to understand amen, amen, also

The Evangelists usually prefer the Haranew word
amen, in their Greek amen, though St. Luke sometimes
renders it by amen, truly, or amen, certainly.

AMENABLE, or AMINABLE, from the Fr. aminable,
or amin, land, is applied to four laws books to a woman,
who is supposed to be gone to her husband.

It is likewise used to signify a right or power of bringing
persons before a particular jurisdiction; thus, we say, a
peron is amenable before such a court, or magistrat.

AMENANUS, in Ancient Geography, a river which passed
by Catana.

AMEND, or AMENDE, in the French Cafpons, a mulct,
or pecuniary punishment, imposed by a sentence of the
judge; for any crime, false prosecution, or groundless ap-
pel.

AMENDE HONORABLE, denotes an infamous kind of
punishment, used in France; &c., on traitors, paricides, fa-
crilegious persons, and other heinous criminals.

It consists in this, that the offender is delivered up to
the common hangman; who, having stripped him to his shirt,
and put a rope about his neck, and a wax taper in his hand,
leads him to the court, where he is to be hung by the God,
the king, the court, and his country.

Sometimes the punishment ends here; and sometimes death,
or the galleys, are added.

The phrase amenbe honorable is also used by way of allusion,
where a person is condemned to come into court, or into the
presence of some person injured, and make an open recantation
ask pardon, &c.

AMENDMENT, in a general sense, a change made in a
thing for the better.

Amendment amounts to much the same as with modification,
reformation, correction, &c.

Amendment, in Agriculture, is more particularly used
for a manure laid on the ground, to fatten or enrich it.

Amendment, in a literary sense, is used to denote the
corrections and other alterations made in the posterior edi-
tions of books. In this sense, amendments are also denomi-
nated emendations.

Amendment, in Law, the correction of an error com-
mited in a process, and discovered after judgment.

If the error be committed in giving judgment, viz. if a
wrong judgment be given, then they cannot amend it; but
the party aggrieved must bring his writ of error. — However,
where the fault appears to be in the clerk who wrote the
record it may be amended. Terms de Ley, 32.

At common law there was little room for amendments
for, says Britton in a treatise, published in the name and by
the authority of the king, probably about the 13 Edw. 1.,
because the law statutes therein referred to are those of
Winchelfer and Weltinmiler the second, the judges are to
record the paroles or plasas, deduced before them in judg-
ment; and king Edw. 1. granted to the judges to make record
of plasas pleaded before them, but prohibited their making their
own record a warranty for their own wrong, and raising
their rolls, amending them, and recording them contrary to
their original enrolment. So rigidly was this statute observed,
that when justice Engham, in the same reign, was induced
from motives of mere compassion for a poor man, who was
fined 13s. 4d. to erase the record and to make it 6s. 8d.,
he was fined 500 marks. With this, it has been said, a
clock-house was built at Weltinmiler, and furnished with a
clock; but the true use of the invention and use of clocks
in this country, which did not take place till about 100
years afterwards, or about the close of the 14th century,
falls in this story. There were, however, some cases, that were amenable at common law. Original writs were not amenable at common law; for if the writ be not good, the party may have another; judicial writs may and often have been amended. 8 Rep. 157. Whatever at common law might be amended in civil cases, was at common law amenable in criminal cases, and so it is at this day: resolved by Holt, Ch. J. Powell, and Powis J. 1 Salk. 51.

Formerly the suitors were much perplexed by writs of error brought upon very light and trivial grounds, as mispellings and other mistakes of the clerks, all which might have been amended at the common law, while all the proceedings were in paper; for they were then considered as only in * fieri,* and therefore subject to the controul of the courts. But when once the record was made up, it was formerly held, that by the common law no amendment could be permitted, unless within the very term in which the judicial act for record was done; for during the term the record is in the breast of the court; but afterwards it admitted of no alteration. But now the courts are more liberal; and, when justice requires it, it will allow of amendments at any time while the suit is depending, in trampling the record be made up, and the term be past. For they at present consider the proceedings as * in fieri,* till judgment is given; and therefore, that, till then, they have power to admit amendments by the common law; but when judgment is once given and enrolled, no amendment is permitted in any subsequent term. Stat. 11 Henry IV. c. 3. Mistakes are also effectually helped by the flatates of amendment and * jeofails,* so called, because when a pleader perceives any slip in the form of his proceedings, and acknowledges such error ("Jeofail or J'ait faille"), he is at liberty by those flatates to amend it; which amendment is seldom actually made, but the benefit of the acts is attained by the court's overlooking the exception. Str. 1011. These flatates are 12 in number; and by these all trifling exceptions are so thoroughly guarded against, that writs of error cannot now be maintained, but for some material mistake attainted. See Com. Dig. tit. Amendment.

By Stat. 14 Edw. III. c. 6. no procefs shall be annulled or discontinued by the misprison of the clerk in writing one falsable or one letter too much or too little; but it shall be amended; and by Stat. 9 Henry V. c. 4. it is declared, that the judges shall have power to make these amendments, as well after as before judgment, as long as the record in process is before them. This statute is confirmed by Stat. 4 Hen. VI. c. 3. For further enlarging the authority of the courts the statute 8 Hen. VI. c. 12 gives power to amend what they shall think in their discretion to be the misprison of their clerks in any record, process, and plea, warrant of attorney, writ, pannel, or return. There are only two flatates of amendments, viz. 14 Ed. III. Stat. 1. c. 6. and 8 Hen. VI. c. 12. and 15; the rest are reckoned to be flatates of * jeofails,* and not of amendments. As these flatates only extended to what the jujclives should interpret the misprison of their clerks, and other officers, it was found by experience, that many just cases were overthrown for want of form, and other failing, not aided by flat. 8 Hen. VI. c. 15; though they were good in substance; and therefore the flatates of * jeofails* were made. By Stat. 32 Hen. VIII. c. 30. it is enacted, that if the jury have once pass'd upon the issue, though afterwards there be found a * jeofail* in the proceedings, yet judgment shall be given according to the verdict. The Stat. 18 Ediz. c. 14. ordains, that after verdict given in any court of record, there shall be no stay of judgment, or reverse, for want of form in a writ, count, plaint, &c. or for want of any writ original or judicial; or by reason of insufficient returns of sheriffs, &c. By Stat. 21 Jac. I. c. 13. if a verdict shall be given in any court of record, the judgment shall not be stayed or reversed for variance in form between the original writ or bill and the declaration, or for want of averment of the party's being living, so as the peron is proved to be in life; or for that the * verba facit* is in part mis-awarded; for mifnomers of jurors, if proved to be the persons returned; want of returns of writs, so that a panel of jurors be returned, and annexed to the writs; and for that the return-officer's name is not set to the return, if proof can be made that the writ was returned by such officer, &c.

The Stat. 16 and 17 Car. II. c. 8. called in 1 Vent. 1000. an omnipotent act, and made perpetual by Stat. 22 and 23 Car. II. c. 4. enacts, that judgment shall not be stayed or reversed after verdict in the courts of record at Westminster, &c. for default in form; or because there are not pledges to prosecute upon the return of the original writ, or because the name of the sheriff is not returned upon it, for default of alleging and bringing into court of any bond, bill, or deed, or of alleging or bringing in letters testamentary or of administrations; or for the omission of vis and armis, or contra pacem, miflying the Christian name or surname of either party, or the sum of money, day, month, or year, &c. in any declaration or pleading, being rightly named in any record, &c. preceding; nor for want of the averment of hoc parasus est verificare, or for not alleging prout patet per recordum, for that there is no right visiere, if the cause was tried by a jury of the proper county or place; nor shall any judgment after verdict, by confession, cognovit alesionem, &c. be reversed for want of mifericordia or capiatur, or by reason that either of them be entered, the one for the other, &c.; but all such defects, not being against the right of the matter of the suit, or whereby the issue or trial is altered, shall be amended by the judges;—though not in suits of appeal, of felony, indemments, and informations, on penal flatates, which are excepted out of the act.

By Stat. 4 and 5 Ann. c. 16. all the flatates of * jeofails* shall extend to judgments entered by confession, nil dicit, or non sum innotanis in any court of record, and no such judgment shall be reversed, nor any judgment or writ of inquiry of damages thereon shall be stayed for any defect which would have been aided by those flatates, if a verdict had been given, so as there be an original writ filed, &c.—By Stat. 9 Ann. c. 20. 5. 7. this act and all other flatates of * jeofails* are extended to writings of * mandamus* and informations, in the nature of a quo warranto: the flatates of amendment and * jeofails* not being confirmed to extend to criminal proceedings, or on penal flatates in general. Buck. N. P. 325. 2 Mod. 144. But a * mandamus* may not be amended after return. 4 Term. Rep. 699. The Stat. 5 Geo. I. c. 13. ordains, that, after verdict given, judgment shall not be stayed or reversed for defect in form or substance in any bill or writ, or for variance therein from the declaration, or any other proceeding.

By the foregoing flatates, from 14 Edw. III. c. 6. to 8 Hen. VI. c. 15. the faults and mistakes of clerks are in many cases amenable; the misprison of a clerk in matter of fact is amenable, though not in matter of law. Palm. 258. If there be a mistake in the legal form of the writ, it is not amenable; the negligence of the clerk shall be amended, but his ignorance in the legal course of original writs is not amenable. 8 Rep. 159. A party's name was mislaken in an original writ; and it appearing to the court that
that the curtor's instructions were right, the writ was amended in court; and they amended all the proceedings after. 2 Vent. 152. Cro Car. 74. If a thing which the plaintiff ought to have entered himself, being a matter of substance, be totally omitted, this shall not be amended; but otherwise it is, if omitted only in part and unintentioned. Danv. Abr. 346. By the common law a writ of error, returned and filed, could not be amended; because it would alter the record; but now by flat. 5 Geo. 1. the writs of error, wherein there shall be any variance from the original record, or other defect, may be amended by the court where returnable.

When the award of a writ of inquiry on the roll is good, the writ shall be amended by the roll. The court cannot amend to make a new writ, or to alter a good writ and adapt it to another purpose, &c. only when the writ is prima facie bad. Mod. Cal. 263. 316. Annals 367. A declaration grounded on an original writ may not be amended, if the writ be erroneous; though if it be on a bill of Middlex or a latitat, it is amendable. 1 Lill. Abr. 67. A plaintiff may amend his declaration in matter of form, after a general issue pleaded, before entry thereof, without payment of costs; if he amend in substance, he is to pay costs, or to give imparence; and if he amend after a special plea, though he would give imparence, he must pay costs. 1 Lill. 58. A declaration in ejectment laid the demurr before the time; this was not amendable, because it would alter the issue and make a new title in the plaintiff. 1 Salk. 48. A demurrer may be amended after the parties have joined in demurrer, if it is only on paper. Style. 48. For the amendment of a plea, in paper or on record, &c. see flat. 4 Geo. II. c. 26.

As to the amendments of records, &c. an issue entered upon record, with leave of the court may be amended; but not in any thing material, or that shall damage the record. 1 Lill. Abr. 61. A record may be amended by the court in a small matter, after issue joined, so as the plea be not altered. Danv. Abr. 338. If on a writ of error a record is amended in another court in affirmance of the judgment, it must be amended in the court where judgment was given. Hard. 505. Where the record of nisi prius does not agree with the original record, it may be amended after verdict, provided it does not change the issue; but a record shall not be amended to attain the jury, or prejudice the authority of the judge. A general or special verdict must be amended by the notes of the clerk of affize in civil causes; but not in criminal actions. 1 Salk. 47. The issue roll shall be amended by the impalance roll, which is precedent; but a roll may not be amended after verdict, where there is nothing to amend it by; though surpluage may be rejected, and fo make it good. Cro. Car. 92. 1 Sid. 135.

A mistake of the clerk in entering a judgment was ordered to be amended. Cro. Jac. 351. Hutt. 41. A judgment may be amended by the paper-book, signed by the master. 1 Salk. 50. At common law, the judges may amend their judgment of the same term, and by statute of another term. 8 Rep. 156. 14 Edw. III. If judgments are not well entered, on payment of costs, they will be ordered to be done fo. When judgments are entered, it is said that the defects therein being the act of the court, and not the misprision of the clerk, are not amendable. Golib. 104. Mistakes in returns of writs, fines, and recoveries, by mutual affent of parties may be amended. Judgment shall not be stayed after verdict, because an original wants form, or varies from the record in point of form, which are amendable. 5 Rep. 45. After verdict given in any court of record, there shall be no flaw of judgment for want of form in any writ, or insufficient returns oftherife, variance in form between the original writ and declaration, &c. Stat. 32 Hen. VIII. 18 Eliz. 7 Geo. I. c. 13. The plea may be amended by the judge's notes. 1 Will. 33. 2 Stra. 1797. For amendments in informations by the attorney general, see 4 Term. Rep. 477, 8. Amendments are usually made in affirmance of judgments, and seldom or never to destroy them; and where amendments were at common law, the party was to pay a fine for leave to amend. 3 Salk. 26. Jacob's Law Dict. by Tomlin, art Amendment. Blackf. Com. vol. iii. p. 407.

Amendment of Bills in Parliament, means some alteration made in the original draught; and we read of amendments of amendments, amendments of returns of representatives, &c.

In cases of wrong returns, so reported by the committee of privileges and elections, and voted by the house of commons, it is usually ordered, that the returns be amended by the returning officer, according to the directions of the house, without filing a new writ.

Amendments ought always to be in so many from whence the thing to be amended originally proceeded, though the directions for the amendments came from the other house. Hakew. Mann of Parl. Bills, p. 167.

AMENDOLARE, in Geography, a town of Italy, in the kingdom of Naples, and province of Calabria Citra; fourteen miles north-east of Caffano.

AMENDUS, in Ancient Geography, a town of Caria, suppos'd, by Marti, to be Myndus.

AMENEBURG, in Geography, a town of Germany, in the circle of the Lower Rhine, five miles east-south-east of Marburg, 48 north-north-east of Mentz.

AMENIA, a town of Asia Minor, belonging to the Chalybes, who inhabited the eastern part of Pontus.

AMENIA, in Geography, a thriving township of Duches County, New York, in America, six miles from Sharon, in Connecticut; containing 3578 inhabitants, of whom 383 are electors.

AMENORRHOEÆ, formed of à priv. μορ, the menstru, and πυ', to flow, in Medicine, is an ability or deficiency of the menstrual excretion in women, between the age of thirteen and forty-seven. See Menstrue, Obstruction, and Cholosis.

AMENTACEOUS, in Botany, a term applied to the flowers of certain trees and plants, which are composed of a vast number of oplices, or anthéæ, hanging down in form of a rope, such as the hazel, &c. See Catkin.

AMENTICÆÆ, denote one of the classes of plants in Linnaeus's natural method of classification; and they are such as bear catkins. 

AMENTIA, in Medicine, is that deficiency of memory or reasoning which constitutes an Idiot. This lamentable malady is placed, by Dr. Cullen, under nervous diseases affecting the mind; because the mental deficiency is generally the most prominent symptom. In many instances, however, the bodily defects are equally conspicuous, and we may conclude that the cause of the disease is always to be traced to some imperfect organization of the body, particularly the brain and head.

A degree of mental imbecility is sometimes observed to follow violent fevers and apoplectic attacks; and this is the only kind from which we expect a patient to recover.

In these cases the return of mental power is observed to be proportionable to that of the corporal functions; and therefore
therefore to be promoted by the means employed in the
treatment of these diseases.

AMENTUM, in Antiquity, a leathern thong fastened
about the middle of a dart, or javelin, whereby, after calling
it at the enemy, it might be drawn back again to the owner.
The amement served also to increase the force of the strike;
for which reason, some of their great men refused to use it,
as confiding wholly in the natural strength of their own
arms. Amement denoted also a leathern string or latchet
that bound their bandoliers.

AMEN, in Botany, see CATNIP.

AMENY, in Geography, one of the Laccadive islands,
with to the Indian Sea. N. lat. 11° 37'; E. long.
7° 30'.

AMER, a river of Germany, which runs into the Neckar,
one and one-half mile call of Tubingen.

AMERADE, a kind of officers among the Saracens,
answering to the governors of provinces among the Euro-
peans.

The name is originally the same with that of emir.

AMERBACH. John. in Biography, a learned printer,
was born at Reutling, in Sweden, and acquired great reputa-
tion in the practice of his art at Brafl. The works of
Augustin were very correctly printed, for the first
1526. He began an edition of
Jerome, but died, in 1515, before it was finished. We are
indebted to Amerbach for the introduction of the beauti-
ful and useful Roman type instead of the Gothic
and Italian.

AMERICAN, or AMERICANISM, from Fr. Merci,
In Laws, a pecuniary punishment imposed upon the offenders,
at the discretion of the court; frequently also called mifer-
cordia.

In the new Terms of the Law, amercement is said to be
properly a penalty asfleld by the peers or equals of the party
amerced, for an offence done; for which he puts himself
upon the mercy of the lord.

There is this stated difference between fines and amerc-
ements: that fines are punishments certain, and determined
by some statutes; but amercements are arbitrary impositions,
proportioned to the fault, and wholly at the mercy of the
court.—Manwood, in his Foref Laws, makes another differ-
ce; as if an amercement were a more easy and merciful
penalty, and a fine a more sharp and grievous one. If amerc-
ements were too grievous, release might be made by an
ancient writ called modera mifercordia.

Fines also are imposed and asfled by the court; amerc-
ements by the country; and no court can impose a fine, but
a court of record; other courts can only amerce. C. Rep.
31. 41. A town shall be amerced for the escape of a mur-
derer in the day-time: and if the town be walled, it is said
it shall be subject to amercement, whether by day or night.
3 Inst. 53.

By the statute of Magna Charta, c. 14, a freeman is not
to be amerced for a small fault, but proportionable to the
offence, and that by his peers. 6 Hen. III. c. 4.

Before this period amercements were often excessive, and
they were imposed on a thousand different occasions, not
only for real crimes, but for trivial or imaginary offences,
and on the most frivolous pretences; of course they were
the sources of infinite vexations to the subjects, as well as of
great riches to the sovereigns of England. They fell heavy
not only on the common people, but upon the greatest pre-
lates, and most powerful barons of the kingdom. This gave
occasion to the above-mentioned article of the great charter,
and to the rules founded upon it, which enacted, that no
man should have a larger amercement imposed upon him
than his circumstances or personal estate would bear; saving
to the landholder his contention or land, to the trader his
merchandise, and to the countryman his wainsage, or team
and instruments of husbandry. In order to ascertain which,
the great charter also directs, that the amercement,
which is always inflicted in general terms ("fit in mifer-
cordia") shall be left, ponent, or reduced to a certainty, by
the oath of good and lawful men of the neighbourhood,
which method of liquidating the amercement to a specif-
com sum was usually performed in the superior courts by the
affidavit or amercement of the coroner, a sworn officer
chosen by the neighbourhood, under the equity of the
statute Westm. 1. c. 18. and then the judges extorted them
into the exchequer. But in the court leet and court baron
it is still performed by afforcers, or fators sworn to affeer,
that is, tax and moderate the general amercement, accord-
ing to the particular circumstances of the offence and the
offender. Amercements imposed by the superior courts on
their own officers and ministers were afferced by the judges
themselves; but when a pecuniary mulct was inflicted by
them on a stranger, (not being party to any suit,) it was
then denominated a fine; and the ancient practice was,
when any such fine was imposed, to inquire by a jury, quan-
tum inde rei dare velabat for annum, falsa fassificatione fini,
et uxoribus et libertum suorum. And since the difafe of such
inquests, it is never usual to affele a larger fine than a man is
able to pay, without touching the implements of his liveli-
hood; but to inflict corporal punishment, or a limited
imprisonment, instead of such fine as might amount to imprini-
sonment for life. Hence it happens that fines in the king's
court are frequently denominated ransoms, because the pen-
alty otherwise falls upon a man's perfon, unless it be re-
demned or ransomed by a pecuniary fine; according to an
ancient maxim, qui non habet in crunnenaut iuit et corpore.
Yet, where any statute speaks both of fine and ransom, it is
held, that the ransom should be treble to the fine at least.

A court leet can amerce for public nuisances only.
1 Saund. 135. For a fine and all amercements in a court
leet, a diftre is incident of common right: but for amerc-
ement in a court baron, ditfres may not be taken but by
prescription. 11 Rep. 45. When amercement is agreed on,
the lord may have an action of debt, or diltrain for it, and
impose the ditfres, or sell it at his pleasure; but he cannot
imprison for it. 8 Rep. 41. 45.

There is also amercement in pleas in the courts of the
record, when a defendant delays to tender the thing demanded
by the king's writs, on the first day. Co. Litt. 116. And in
all personal actions without force, as in debt, detinue, &c.
if the plaintiff be non-suited, barred, or his writ abate for
matter of form, he shall be amerced; but if on judicial
proceeds, founded on a judgment and record, the plaintiff
be non-suited, barred, &c. he shall not be amerced. 1 Nelf.
Abr. 260. And an infant, if non-suited, is not to be

Amercement royal, is used by fome to denote a pecuniary
punishment laid upon a Sheriff, coroner, or such-like officer
of the king, by justices, for some offence or abuse in his
office.

AMERI, in Botany. See INDIGOER.

AMERIA, in Ancient Geography, a district of Armenia,
mentioned by Strabo (tom. ii. p. 835.) situated in the vicinity
of Cabrara, in which was a temple of the moon Pharnac-
us, a number of priests or Heroes, and a sacred territory,
the fruits of which were appropriate to the pontifice. The

O 2
month Pharnaces, which was the deity denominated Lu-um among the ancients, was held in such veneration, that the oath by the fortune of the king and of the mount Pharnac-ces, was called the royal oath.

Ameria, now Asis, a town of Italy, south-west of Spoleto, founded, according to Cato, 975 years before the Persian war, or 1115 years B.C. Angulius established a col-ony in it. The celebrated Rothis is said to have been a native of this city. The whole of its territory was assigned by Angulius to the veteran soldiers.

Ameria, in Geographia, a town of Afiatic Turkey, in Natolia, 72 miles call of Kutaja. N. lat. 39° 25'. E. long. 5° 35'.

AMERICA. General History of. Throughout the his-
tory of the world no event more curious, in the eye of the philo-
osopher, has happened than the discovery of the new con-
tinent, which, with its surrounding seas, forms a com-
plete hemisphere of our planet, wherein of the ancients knew
no more than a hundred and eighty degrees of longitude,
which might even, by a slight deduction, be reduced to a
hundred and thirty; for, such is the error of Ptolemy, that
he shoves back a hundred and forty-eight degrees and more
the eastern mouth of the Ganges, which, according to a-
stronomical observations, taken by the moderns, is settled at
about a hundred and eight: thus manifestly giving an over-
plus of forty degrees of longitude in the statement of
Ptolemy, who seems to have had no notion of any of the
parts beyond what we denominate Cochinchina, which
consequently forms the eastern boundary of the world, as
known to the ancients, as our first meridian is the boundary
of the world to the west.

To pretend that the Phoenicians and the Carthaginians
made the voyage to America is an opinion truly ridiculous,
and no better supported on authentic documents than the
flories related in our times of the pretended navigations of
the Chinefe towards the shores of Mexico. It is well
known, from inquiries made at Pekin, that the work whereby
in some traces of these navigations to the latitudes of
Mexico were supposed to be found, is a romance to the full
as grofs as the fictions related by Aelian, (Hist. Diver-s.
lib. iii.) in regard to an imaginary country, entirely full of
gold, and which has seemed to have a complete conformity
with Peru, in the eyes of several of the learned, whose
judgment was extremely confined. Notwithstanding what
Vollus is pleased to say, in his commentaries on Pomponius
Mela, and M. Huct, in his defcription on the commerce of
the ancients, where he cites the Anuhi Orinus, which
nobody knows, it is certain that the Chinefe never took
long voyages; and that in 1330 they had not any notion
whatever of the island Formosa, which is at no greater dis-
tance than eighteen leagues from their coast. If they had
been in the practice of making long voyages, their igno-
rance in geography would not be so prodigious as it actually
is at present, to such a degree that they have never been
able to lay down the map of China: accordingly, whenever
they wanted a map of China, they have been obliged to
employ Europeans, whose performances we are well ac-
cquainted with, and know them to fall very far short of what
positive geography has a right to demand concerning to vail
a region as Asia.

If any people in Europe in reality did frequent some
parts of the coast of North America prior to the era of the
navigations of Columbus and Vespuccius, it must have
been the Icelawders and Norwegians; since it cannot be di-
puted that both the one and the other of these people had
before the fifteenth century formed settlements in Green-
land, which should at present be reckoned as a part of the
new continent. But here, we cannot avoid observing, that
we should never have been able to discover the centre of
America, if no other way had been found for penetrating
thither, than that of Greenland, by reason of the huge bul-
hes of ice which at once prevent any great progress within land,
and from making any considerable advances towards the pole.
Besides, the danger to be encountered in these high lat-
tudes, the exerise severity of the climate, the want of
many species of sufficiance, and the little hope of meeting
with any treafures to counterbalance the arduous enterprise,
would have been enough to dishearten the most intrepid
navigators. Christopher Columbus, however, in 1492, dis-
covered an easy passage; and, when we perceive him push-
ing up as far as the 25th degree of north latitude, to fetch
that call wind which commonly prevails between the trop-
pics, and afterwards proceeding in near a straight line to
the island of St. Domingo, we are almost tempted to be-
lieve that he had a previous inclination of that track; and
therefore, the Spaniards, with a degree of ingratitude alto-
gether monstrous, endeavored to deprive that great man,
because he was not born in Spain, of the credit of his dis-
covery, by publishing on this occasion the follle puierce and
contradictory fables. The truth of the matter is, that Co-
nubus substituted to be guided by one of his brothers,
named Bartholomew, who was a geographer by profession;
and in drawing his maps of the world, such as they were able
to make them at that time, he was perpetually alfirmed,
that of three hundred and sixty degrees of longitude, only
a hundred and eighty at molt were known; and, of course,
there remained as much of the world to be discovered as
had already been found out: and as it seemed by no means
probable that the ocean could extend, without any interrup-
tion, over one entire hemisphere, he maintained, that by
keeping conftantly to the well from the Canaries, they must
infallibly come either to islands or to a continent. And in
fact so it turned out. They first came to islands, and then
to a continent, where every thing wore the face of such ex-
tral defolation, that one cannot reflect upon it without
amazement. It is by no means our intention here to follow
the ancient flories, in which, to the credulity of childhood
has been added the dreams of daguage. In these accounts
whatsoever we meet with favours of the marvelous; nothing
is examined into: it shall be our bubisifs, therefore, to
devour at communicating to the reader clearer notion and
juftier ideas.

Among the various populations dispersed throughout the
forests and deserts of this newly discovered world, it is not
possible to point out above two that had formed any fort of
political society, the Mexicans and the Peruvians, and even
their history is stuffed with fables. Besides, their popula-
tion must have been much lower than has been flated, since
they had no iron instruments for felling the trees, nor for
filing the ground; they had no animal fit for drawing the
plough, and the construction of the plough itself was even
unknown to them. It is cally conceived, that when the la-
bour of the field must altogether be done with an wooden
yovel, and by the hand, it is impoffible to lay out much ground in
agriculture: and without a regular agriculture, wherein the
labour of animals concurs with that of mankind, no people
can become numerous in any part of the world. It is,
however, very surprifing, that at the time of its discovery
America possessed scarcely any animal fitted for tillage: the
ox and the horse were unknown, as well as the afe, which
was anciently employed in culture by several nations of our
continent, as in Bactica and Lybia, where the lightens of
the foil, says Columella, (De Re Rust. lib. vii.) enabled
this animal to supply the place of horses and oxen. It is
commonly thought that the American bison might have
been serviceable in tillage; but the bison being of a rude
untractable nature, it would have required a long series
of generations to tame him gradually for the purposes of hu-
bondry. Now this is what no one ever thought of in
America, where the people are both less industrious and
less inventive than the inhabitants of our hemisphere: their
laziness and indolence particularly struck the more attentive
and fagacious observers. In short, the stupidity they evince
on certain occasions is such, that they fiorn, according to
the expression of M. de la Condamine, to live in eternal
infancy. (Voyage far le fleuve des Amazones.)

At the same time no irregularity has been noticed in
our outward organs, unless we chide to except the abso-
lute defect of a beard, and of that down which persons of
both sexes should have on the chin, after arriving at
the age of puberty. It is in vain to affirm that the germ
of this soft down is destroyed or eradicated, since at a very
advanced age, here and there some flattered hairs of it
grow, which they commonly pluck up with their thumbs
and fingers. Their flaxen hair differs not from that of others
of our species in the temperate zones; for beyond the arctic
circle, the tribe of Esquimaux or Inuits, though of American
descendant, is composed of only short people; because
the action of the extreme cold is hostile to the complete
expansion of the members; and the cafe is nearly the same
with the inhabitants of Greenland, which is known to have
been originally peopled by hordes of American race, of
which the perfect agreement between the language of the
Greenlanders and that of the Esquimaux leaves no room to
doubt.

Nothing but a blind fondness for the marvellous could have
occasioned the propagation of such absurd figments as
those relating to a gigantic race, found on the Magellanic
shores, now customarily denominated Patagonia. The most
sensible navigators, as Narborough, (Voyage to the South
Seas,) who have had communication with the Patagonians,
describe them to be of the ordinary stature of mankind,
living by small troops in those immense regions, where the
English, who traversed them from one extremity to the
other, from Cape Blanco to Buenos Ayres, saw not an
inch of ground cultivated, nor the least trace of tillage;
so much that the difficulty of finding the means of subsis-
tence must have been exceedingly great, prior to the time of
the discovery, and while there was not a horse inexistence,
since the flesh of that animal is at present almost the sole
nourishment of the Patagonians who occupied the midst
between the river de la Plata, and the 45 th degree of south latitude. Such is the extreme indolence of
these savages, that they devour the very animals by means of
which they might clear their deferts, and at length put
an end to that miserable mode of existence in which they are
not a jot above the level of the beast, under the guidance of
infinit alone.

We shall not, as has been hitherto done, reckon among
the particular and distinct races, those Blafards that are
found in numbers by no means considerable at Colia Rica,
and the ilhumin of Darien, (Wafer's Description of the Ilh-
um of Darien, and Coreal Voyages, tom. i.) this being
only a defera, or an accidental interation in the tempera-
tment of the parents who produced these diseoursed in-
dividuals, who are known to bear a great analogy with the
white negroes, or the Dondos of Africa, and with the
Kakenalakes of Asia. The diltemper in which these symmp-
toms originate attacks more or less all the black or extremely
swarthy people in the hottest climates of the globe. The
pygmies, spoken of in an account translated by M. Gomb-
ervolle of the French academy, the himantopodes, or fa-
vages having the inflection of the knee turned backwards,
and others that have but one leg, may be ranked in the
fame class with the Amazonas, and the inhabitants of El
Dorado, among the absurdities which some travellers have
been weak enough to believe, and vain enough to publich.
All the monstrous people that have been seen in the New
World, were rendered fo by artifices; such as those that
have the head completely round, and are called bow1-head,
those who have it flattened, and are denominated plajoce-
phali; in short, such as have it conical, or lengthened out,
and are flyked macrocephali. Among a naked people, where
the garments cannot be affected by fahions, they influence
the body itself, and produce those various deformities
which have been noticed among the savages, some shorten-
ing their neck, others piercing the cartilage of the nose,
the hips, the balls of the cheeks, others lengthening their
cars, or curving their legs to swell by means of a figure
above the ankle.

It is not known, and it will ever be a matter of difficulty
to trace the true forces of the veneral disease with which
the Americans were afflicted in the West India islands, the
Caribbees, at Florida, in Peru, and throughout a great part
of Mexico: on this subject several curious conjectures have
been thrown out, some of them insufficiently ridiculous.
It has been pretended, that the flab of the fish intoxicated
the curum-ape, and the flesh of the game killed with
arrows poisoned with a species of wooodbine, called woorara,
produced this contagion among them. But the ancient
wild people of our continent poisoned in the same manner
their hunting weapons, without any conseqences in the
least degree prejudicial to their health and it is a well-
known fact, that the fishes killed in the ponds with the coc-
cula orientalis officinarum, and that the fowls slain in some
districls of the Alps with knives rubbed over with dle de
napel, afford a very wholesome nutriment. Besides, in the
island of St. Domingo, where the veneral disease was ex-
tremely rife, the ufe of poisoned darts was not in practice as
among the Caribs and several tribes on the Terra Firma. Neither
is it true, that the fling of a serpent or lizard of the iguan
tribe, or that the human flesh eaten by these anthropophagi,
engendered the veneral virus in the blood of the inhabit-
ants of the New World. The hypothesis of M. Affrig, as
flated in the last edition of his great work "De Morbis Vene-
reis," borders far more on probability than the fanciful opin-
ions just mentioned; though this hypothesis of that fa-
mous physician is by no means generally adopted. We
shall content ourselves with observing, that the veneral dif-
feblue may have been a morbid affection in the temperament
of the Americans, like the scurvy in the countries of the
north: for, after all, we are not to imagine that this dilem-
per made the fame ravages in America as it did in Europe
some time after its transplantation.

The almost total want of culture, the valt extent of the
forets, the immense tract of country, the waters of the rivers
exuded from their beds, the infinite number of swamps and
lakes, together with the holt of infects which are a natural
consequence from all these, rendered the climate of America
infalubrious in certain parts, and much colder than it
might otherwise be expected, confiding the relative la-
itude of its territory. The difference of temperature in
the two hemispheres, under the same paralles, has been esti-
nated at twelve degrees, and by a closer calculation, it
might
might even be fixed at some degrees more. Now, these local causes operating conjointly must have had an influence on the constitution of the indigenous people, so as to produce some alteration in their faculties: accordingly, it is only to a want of penetration that we can ascribe the little progress they had made in metallurgy, the flint of all sorts, as that without which the others fell, as it were, into a lethargy. It is well known that nature has not denied iron mines to America; and yet no nation of America, neither the Peruvians nor the Mexicans, possessed the secret of forg-}

mg that metal; whereby they were deprived of many conveniences, by rendering it impossible for them to make regular bars of timber in their forests, and to restrain the rivers within their beds. Their hatchets of stone could not enter the trunks of trees, except by the application at the same time of fire to them: so that they were forced to convey away all the parts reduced to coal, in order to prevent the flame from coming at the root. Their procress was nearly the same whenever they wanted to make barrels of a single piece, or cauldrons of wood for boiling their victuals, by afterwards casting in red hot flounces; for comparatively but few of the savages had the art of making vessels of clay. The farther these methods were from perfection, the more time they required in the practice: therefore, in South America it was often observed, that men were employed for two whole months in felling three trees. To conclude, it will be easily imagined, that the more stationary populations, as the Mexicans and the Peruvians, notwithstanding the want of iron, had acquired a degree of industry greatly superior to the mechanical skill polished by such as were dilered by families, like the Wopons, where they have not sufficient resources, says Dr. Bancroft, for procuring the mott necessary apparel clothing; and it is only with the reticulication found in the cocoa nut, or with some bark of trees, that they cover the organs of generation. Natural History of Guiana.

Hence we are not to be surprized, that the New World contained so few inhabitants at the time of its discovery: for the savage life is repugnant to the multiplication of the species beyond what we should at first sight imagine: since the saws the savages cultivate the soil, the more ground they want to live upon. In the northern tracts of America districts of forty leagues have been travelled over in all directions, without meeting with a single hut, or perceiving the smallest vestige of a habitation. After a march of nine or ten days, keeping always the same course, the traveller has perhaps come up to a petty horde, or rather a family, separated from the rest of mankind, not only by mountains and deserts, but also by its language differing from all known tongues. Nothing more strongly proves the little communication then subsisting between the Americans in general, than the incredible number of dialects spoken by the different tribes of savages. Even in Peru, where social life had made some faint advances, a great variety of languages was nevertheless found, reciprocally incompre-}

hensible or unintelligible, and the emperor could not give his commands to the greater part of his subjects, except by means of interpreters. It naturally occurs on this occasion, that the ancient Germans, though distributed like a
d spouse in populations, separated by vast deserts, yet spoke only one mother-tongue; and a person might, before the Augustan age, as well as at present, make himself tolerably well understood by means of the Teutonic, from the centre of Belgium, to the banks of the Oder: whereas, in the New World, we need only, says Acosta, to cross a valley for hearing another jargon. De procur. Indorum fabul. The depopulation was perhaps still greater in the more southern parts of America than in the north, where the forests had usurped every thing; so that much of the great game might propagate, and fulfill themselves in them, and at the same time afford nourishment to the hunters; whereas in the Magellanic countries there are plains upwards of two hundred leagues in extent where no wood is seen, but only bushes, bristles, and noxious weeds. (Beichreich. von Patagonia.) Whether it be that the quality of the briny or acid waters found there is repugnant to the propagation of forests, or that the ground there secretes deppositions of gravelly and flaky fulminances, from which the roots of large trees can derive no aliment. In short, for forming some idea of the defoliation of the Magellanic regions, it will suffice to say, that the English, carried into slavery by the Patagonians, have often travelled, in the train of their barbarous makers, for a whole fortnight together, before they came up with a few miserable huts covered in with horti hides. In the village that has been figured the capital of Patagonia, and where the grand caicce refused, they could reckon in 1741, to more than fourscore persons of both sexes. Ifon's Voyages. Bifides, in the southern degrees of latitude, there are few lands, one part whereof is marshy, and the other annually overflowed, because the rivers and torrents, which have not channels proportionate to their volume of water, deluge the country to immense diluvions on the accss of the rainy season in the torrid zone. From Sierra Lita to the extremity of the mission of the Misses, about the sixteenth degree of south latitude, through a space extending upwards of three hundred leagues, are found either these swamps or those lands where the inundations frequently drive the inhabitants up the mountains: accordingly there were seen but few, and they spoke thirty-nine languages, not one of which had any affinity with the rept. Relation de la Mission des Misses.

It is thought that the entire population of the New World, at the time of its discovery, might be forty millions; which falls short of the sixteenth part of the total amount of the human species, upon the computation of those who give to our globe eight hundred millions of individuals. Yet it is supposed, that in dimension the new continent is nearly equal to the old one: however, it is of confection to observe, that the calculations of Tempelman, Struyek, and several others, in regard to the surface of America, reduced to square miles, are not entitled to much confidence, as the geographical maps are still too defective for such an operation; and it would scarcely be believed, that all the known maps contain an error of almost a hundred leagues in the longitude alone of some stations of Mexico, as that longitude has been lately determined by an eclipse of the moon. But this is not all, for much as there is a tract of country beyond the Sioux and the Alenepolos; the commencement whereof towards the west is not known any more than where it terminates towards the north.

M. Buffon had already observed, that some Spanish authors must have been guilty of great exaggerations in what they relate concerning the number of persons who, according to them, were found in Peru. But nothing more completely proves that these writers have exaggerated, than what we have mentioned of the small quantity of ground rendered productive in this country, where Zarate himself agrees, that there existed only one place that had the aspect of a town, and that town, says he, was Cuzco. (Hist. of the Conquest of Peru, book i. chap. 5.) Nay, to long ago as the year 1510, the court of Spain law, that, to remedy the depopulation of the conquered provinces in America, no other
other means were left than to transport negroes thither, where the regular traffic began in 1516, and call enormous sums: it is even computed that each African brought to the island of St. Domingo came to upwards of two hundred ducats, or more than two hundred chequins, at the rate that the Genoese merchants charged for them. The Spaniards have, doubtless, contrary to their own interest, destroyed a great number of Americans, both by the labour of the mines and by atrocious depredations; but it is no less certain, that countries whither the Spaniards never penetrated, as the parts adjacent to Hudson's Bay, are still more desert than others that fell under the yoke of the Caffians.

We now conceive how great the difference in the fifteenth century, between the two hemispheres of our globe. In one, civil life was but just commencing; literature was utterly unknown: the very names of the sciences had scarcely been heard: the generality of trades were wanting: tillage was in its rudest stage as hardly to defray the name of agriculture, since neither the plough nor the harrow had been invented, nor any animal trained to draw them: reason, which alone can dictate equitable laws, had not yet cauifed her voice to be heard: human blood was shed upon the altars; and even the Mexicans were full in some respects anthropophagi; an epithet that may also be extended to the Peruvians, since, by the confession of Garcilasso, who is by no means prone to exaltate them, they fed the blood of children on the canes, or sacred bread, if that name may be applied to a paife, kneaded, so as for fanatics to eat it in a kind of temples by way of honouring the deity of whom they had no knowledge. In our continent, on the other hand, societies had so long been formed, that their origin is almost lost in the darkness of antiquity, and the discovery of forged iron, so necessary and so unknown to the Americans, has been in use among the inhabitants of our hemisphere from time immemorial. For, though the processes employed for obtaining the malleability of a metal so flubborn in its mineral state be very complicated, yet M. de l'Estoile has clearly proved that the several ores, at which writers have pretended to fix this discovery, are to be regarded as fabulous. Letters fur la Chine.

It is impossible here to enter into a regular analysis of the systems proposed for explaining the caufes of this difference between the two parts of the same globe. It is a secret of nature, on which the human mind becomes more and more confused in proportion as it obstinately determines to fathom it. Nevertheless, those physical vicissitudes, the earthquakes, the volcanoes, the inundations, and peculiar catastrophes, whereof we, who live in the calm of the elements, have not a very accurate idea, may have had some influence in its production; and it is well known at present that the most violent shocks of earthquakes, which are sometimes felt throughout the whole extent of the new continent, communicate no succussion at all to ours. Had it not been for the private advices received from different parts, we in Europe should never have known that, on the 4th of April, 1708, the whole tract of America was shaken: whence we may infer, that ancient dreadful calamities may have happened, whereof the inhabitants of our hemisphere, so far from feeling them, have not had the flighted intuition. Neither should we, following the example of some of the learned, apply to the New World the prodigies found in the Timaeus and the Critias of Plato, concerning the Atlantick fink by a torrent of rain that lasted only four and twenty hours. The basis of this tradition was brought from Egypt, but Plato embellished or disfigured it by a number of allegories, some philosophical and others puerile; such as the victory obtained over the Atlantides by the Athenians, at a period when Athens was not yet in being; these anachronisms occur so frequently in the writings of Plato, that it certainly was not without reason that the Greeks themselves accused him of being unacquainted with the chronology of his country. Athen., lib. vi. cap. 12 & 13. The great difficulty is to know whether the Egyptians, who were no mariners, and consequently could be but little versed in positive geography, had any accurate knowledge concerning a large island or a continent situated beyond the pillars of Hercules. Now it must be owned that this is not probable; but their priests, while studying cosmography, might furnish that there were more portions of land furthered in the ocean than they had knowledge of. The left they knew, from the total want of navigation, the more natural it is that they should have fallen on this conjecture; and especially if it could be shewn that prior to the navigation of the earth performed in Egypt by Eratosthenes, under Eusthenes, the priests had already an idea of the actual dimensions of the globe. However this be, their doubts and their surmises concerning the existence of some large tract of country, had no more relation to America in particular than to all other lands with which they were unacquainted; and the limits of the ancient world, precisely as we have fixed them, remain invariably the same.

That the cataclysm, or inundation of the Atlantid, rendered the sea beyond the straits of Gibraltar so muddy as to make it un navigable, as Plato affirms, is flatly contradicted by all experience from the voyage of Hanno to our own times. And yet M. Géfner, whose erudition is universally acknowledged, thought that the isle of Ceres, spoken of in a poem of very high antiquity, attributed to Orpheus under the title of Ἀτλαντίσκε, was a fragment of the Atlantis: but this isle, which is described by its forests of pines, and particularly by the black clouds which surrounded it, has no where been found; so that it must have been swallowed up in the abyss subsequent to the Argonautic expedition, even supposing, contrary to all probability, or rather contrary to policy, that those Argonauts could have come from the Euxine into the Atlantic ocean, by conveying the ship Argo from the Bosphorus into the Vifula, to enable them afterwards to enter the Mediterranean by the columns of Hercules, as it is mentioned towards the end of that poem referred to Orpheus; whence we may conclude, that there has been no sparing of the marvellous, and that M. Géfner might have been left credulous without any impeachment of his prudence.

If we find any where the well of us some traces of a continent converted into a multitude of isles, it is doubtful in the Pacific ocean; and we shall not here repeat what the President de Brofio has advanced on this subject in his work, in which he treats of the navigations to the southern parts.

As to those who pretend that the human race has only of late found its way to America, by crossing the sea at Kamtschitka, or the straits of Tichfuki, either upon the fields of ice or in canoes, they do not consider that this opinion, besides that it is extremely difficult of comprehension, has not the least tendency to diminish the prodigy: for it would be surprising indeed that one-half of our planet should have remained without inhabitants during thousands of years, while the other half was peopled. What renders this opinion least probable is, that America is supposed in it to have had animals, since we cannot bring those species of animals from the Old World which do not exiit in it, as those of the tapir, the glama, and the tajecu. Neither can we admit of a recent organization of matter for the hemisphere opposite to ours: because, independently of the accumulated difficulties in this hypothesis,
hypotheses, and which can by no means be solved, we shall observe, that the foill bones discovered in so many parts of America, and at such small depths, prove that certain species of animals, so far from having been recently organized, have been annihilated a long while ago. It is an incontestable fact, that when Christopher Columbus arrived there, there existed neither in the islands nor in any province of the new continent quadrupeds of the first magnitude: there was neither the doomed ncar, the camel, the giraffe, the elephant, the rhinoceros, the horse, nor the hippopotamus. Therefore the large bones that have been dug up have belonged to species extinct or destroyed some centuries anterior to the epocha of the discovery of that country; since the very tradition of them no longer subsisted among the natives who had not so much as heard talk of any quadrupeds of larger size than those found among them in 1492. Yet the molar tooth, in possession of the late Abbé Chappe, who died in California, was eight pounds in weight: as we learn from the extract of the letter addressed to the academy of Paris by M. Alzate, who affirms, that at Mexico is still preserved the bone of a leg, the knobb whereof is a foot in diameter. Some of the large species of the hippopotamuses, such as are found in Abyssinia and on the shores of the Zaire, produce grinders weighing upwards of eight pounds; and yet it may be doubted whether there be any elephants having legs that contain parts of such prodigious dimensions as those mentioned by M. Alzate, whole account, however, may not be absolutely exempt from exaggeration. The fame may be said of the dimensions given by Father Torrubia, in his pretended Gigantology, to some fragments of skeletons dug up in America, and which are at present pretty generally to be seen in the cabinets of Europe. The late Mr. Hunter, who made this subject his particular study, thought that they belonged to carnivorous animals; and it was not till after he had gone through a long course of comparative anatomy, that he delivered this opinion to the Royal Society of London. [Phil. Transact. for the year 1768.] But if this were true, nature must have acted upon a contrary plan in America to what she has followed in our continent, where all the terrestial quadrupeds of the first magnitude are frugivorous and not carnivorous. It is a mistake in Proper Alpinus and M. Maillet, to imagine that the hippopotamuses are farcophagous or carnivorous. The reason whereof seems to be the difficulty that carnivorous animals of the first magnitude would have had in finding fullness, and that at all times; whereas the vegetables immediately spryng up, and in such abundance, as to be more than sufficient for the nourishment of frugivorous beasts of the most enormous bulk: accordingly, the opinion of those who attribute these relues to zoophagous genera is scarcely probable. In vain were the savages who dwell on the banks of the Ohio interrogated concerning their notions about the huge bones that were found on the borders of that river in 1738; they threw no more light on the subject than the inhabitants of Siberia do on the discovery of the foill ivory of their country, which some of them consider as the spoils of giants, and others as the remains of an animal living under ground, which they call mammala, being more worthy of appearing in the mythology of the north than in the nomenclature of natural history. [See Tuite’s View of the Russian Empire, vol. i. p. 26.] Nevertheless M. Bertrand, that sagacious observer, who traversed Pennsylvania and a great part of North America, affurres us, that some savages, fixing on the place where the bones found in the Tidewater of the Blue Mountains, reaching from Canada to Carolina, said that it was not surprising to find shells about the Blue Mountains, since they knew that in days of yore the sea had surrounded them with its waters.

This relation is founded on the tradition universally diffused among all the tribes of America, from the Iroques of Canada as far as Mexico. They affirm, that in former times the low lands of their continent were submerged, which obliged their ancestors to retire to the heights. It is not without some degree of allowance that we read in Acosta, that in his time traces strongly marked of that inundation were still seen in several places: “Certe in novo orbe ingens cujusdam exsudationes non obscura monumenta a proxima notatur.” [De Natura Nov. Orb.] However this be, we are unable to explain how all the populations of America had so little commerce and connection with each other, as is proved from the multiplicity of languages in use among them, otherwise than by admitting that their manner of living by the chase or by the fishery not only prevented them from uniting, but even obliged them to retreat from each other. Accordingly, it has been seen, that when different tribes have come so near as to intercept the game, it kindles national wars, which only terminate in the destruction or the retreat of the weaker or less courageous tribe. Handfuls of men there dispute for the possession of immense defects, and the enemies are often at the distance of above a hundred leagues atonier: but a hundred leagues are nothing to hunters, who, in the search of game, or in the distant pursuit of it, always meet in some part or other. The difficulty of fixing boundaries, which is very great even among sedentary nations, is much greater among hordes who roam from forests to forests, and yet pretend to be the absolute proprietors of districts which they only run over.

Such nations as were really fishers, or ichthyophagi, existed only in the northernmost regions of the New World: for, though we find between the tropics savages who are much addicted to fishing, they nevertheless plant several feet of maize around their huts. But throughout America this culture, as well as that of the maize, was the busines of women, and the reason of it is very easy to discover; but little of it was cultivated, so that this employment was not regarded as the principal occupation. Many hunters have even been discovered, as well in the south as in the north, who followed no species of cultivation, living solely on game. As it happened that they were more successful at some seasons than at others, they could only preserve their meat by boiling it: for the nations dispersed towards the centre of the continent had not the slightest knowledge of salt; but almost all those who dwell in the torrid zone, and even at the extremities of the temperate zones towards the equator, made great use of pimento (capsicum annum) or other herbs as salt; and this they were taught by nature. We should here observe, that the physicians of Europe have generally been and are still in an error in regard to spices. In burning cliimes great and continual use of them is necessary to aid digestion, and relieve the bowels the heat which they lose by a too copious transpiration. Thus travellers inform us that those savages of Guiana, who sprinkle so much pepper over their viels, as to excoriate the tongues of persons not accustomed to it, constantly enjoy a more confirmed state of health than the other people of the country, as the Acouas and the Moroux, who cannot always procure pimento in sufficient quantities. Even in Europe we see how necessary this spice is to the Spaniards, who few white fields with it as we few barley: in short, it is well known that, in proportion as the heat of the climate augments, it has been found all over Asia and Africa that the consumption of spices has augmented in a proportion with the heat.

Among the hunting nations of the New World different componisns, to which we commonly give the name of nutritive powders or condenal aliments, have been discovered, which
which they expressly reduce to a small compass, in order that they may be able the more easily to convey them when they are to take refreshment for the safety of the game, which are in some places at a great distance from those in which they are in quest of them. Moreover, we gather, from various accounts, and even from some paffages in history, that the gentrality of ambulatory nations of our continent have had or still have similar practices: the savages of great Britain composed a kind of these paffes with karemyle, which is supposed to be the tubercules of the potato, called by the country folk wild vetches, though in fact it is a lathyrus. By swallowing a ball of this drug the Bretons were enabled to dispel with all other aliment for an entire day. [Dio Caius, in Sever.] The cafe is nearly the fame with the green powder, in use among the savages dispersed along the river Sulquehanna, which falls into Chesapeak Bay: it will suffice here to observe, that this substance is composed of torrefied maize, which forms the principal ingredient, roots of angeliae and salt. It may be conjectured, however, that these barbarians, before they had any communication with the colonies of Europe, employed no salt in the composition, as it cannot add much to the alimentary properties.

As to the method of procuring fire, it was the fame throughout the whole extent of the New World, from Patagonia to Greenland: that is, by rubbing pieces of hard wood against other very dry pieces, fo long and fo forcibly till they emitted sparks or kindled into a flame. It is true, that among certain populations to the north of California, they had the method of inflicting a kind of pivot in the hole of a very thick plank; and by the circular friction produced the fame effect with that above mentioned. [Mueller, Reife und Entdeckungen von den Russen.] It should seem as if it were not a custom, or, if the expression may be allowed, the innate industry of man, that taught him this practice: for that, on this supposition, what some accounts relate concerning the inhabitants of the Maranes, the Philippines, Los Jordenas, and the Amicaus, who were ignorant, as they pretend, of the secrecy of procuring fire, must be entirely without foundation. And if we find similar facts in the geographers of antiquity, as Pomponius Mela, in regard to certain tribes of Africa, it is necessary we should know that this author drew his information from the relations of Eu-adoxus, whom Strabo describes as an impostor, who, in order to have it believed that he had doubled the Cape of Good Hope, takes the liberty of telling abundance of falsehoods. It appears, from the history of China, and particularly from the custom still subsisting among the Kamthadases, the Siberians, and even among the Russian peasants, that the method of causing wood to take fire by friction must have been common in our continent prior to the knowledge of fire and of pyrites: the heat felt by savage man in his hands on rubbing them taught him the art.

As there were in America a very great number of petty nations, of whose fome were more deeply sunk in barbarism than the rest, and in a total ignorance of all that constitutes the rational animal, it is extremely difficult to distinguish accurately the customs adopted only by some particular tribes from the practices generally followed. There are travellers who have thought that none of the savages of the New World had the smallest idea of incest, at least in the collateral line, and that brothers indiscriminately married their sisters, or cohabited with them without marriage; which gave occasion to some persons to imagine that both the physical and moral faculties of those savages must have undergone an alteration, since it is thought that it is with mankind as with domestic animals, whereof some become haunted by incessant copulations; a circumstance that has pointed the necessity of mixing in caring for the races, for the purpose of maintaining the vigour and perpetuating the beauty of them. It is evident, from experiments recently made on a single species, that the degeneracy is greater and more rapid by a succession of copulations in the collateral than in the direct line; a refutation which certainly would not have been expected. However, according to the letters of Lattes and Guimara [Muller, Histoire des Sauvages & Histoire d'Oranook], it is certain that there existed several tribes in America, among whom marriage was not contracted even in the third degree of parentage; so that it cannot be said the conjunctions which we term illicit, or incestuous, were in general practice there, as they undoubtedly were among the Caribs and several others. Garcilasso likewise relates [Histoire des Incas] that the grand caciques, or the emperors of Peru, by a curious sort of polygamy, married their sisters and their cousin-germans at the same time. He adds, indeed, p. 68, tom. ii. that this custom extended not to the people; but it is a fact that seems to us almost impossible to explain. However, we ought not to give implicit faith to all that we read in Garcilasso touching the legislation of the Peruvians; besides, he agrees that, among the hordes of this country, where the authority of the grand cacic or emperor was unsettling, as among the Antis, "marriage was unknown, when nature inspired them with desire; chance gave them a mate, taking whatever woman they met; their daughters, their fillers, their mothers, were indifferent to them; these last, however, were more excepted. In another canton," he adds, "the mothers kept their daughters with extreme care, and when they married them, elles les destinaient en public de leurs propres mains, pour montre qu'elles les avaient bien gardees." [Tom. i. p. 14. This last custom, if true, would appear still more astonishing than the incest, which must have really been in vogue among the petty hordes, composed of not above 150 persons, such as are at present seen in the forests of America, than among the more numerous tribes; and especially if we reflect on the multiplicity of languages reciprocally unintelligible, which prevented these petty hordes from procuring wives from their neighbours. It should here be remarked, that what we have mentioned on the subject of the degeneracy that may arise from incessant copulations to the human race, as well as to several species of animals, is nothing more than a bare supposition. The truth is, that we are not at present, nor are likely soon to be, sufficiently informed on a subject of such importance, for being able to speak on it with confidence; for it would be to no purpose here to cite the example of some nations of antiquity, particularly that of the Egyptians, whose laws, which are thought to be the best known, are often the least understood. The Greeks, who wrote on the history of Egypt after the death of Alexander, might easily have confounded the foundations of a foreign code, adopted under the dynasty of the Lagides, with the foundations of the national code, wherein we, who have made it our particular study, have not been able to find any satisfactory proof of the law that is conjectured to have existed there prior to the time of the conquest of the Macedonians; but a more ample discussion of this matter would here be certainly out of place. What convinces us, however, that we ought not to insist on the necessity of crossing the races in regard to mankind, as we do when speaking of the domestic animals, is, that the Circassians and the Mingrelz constitute a people who never mingle with any other, and with whom the degrees of consanguinity that prevent marriage are extremely con-
trested; and yet their blood is generally known to be the
bell in the world, at least in the fair sex; and it is by no
means credible that the men there are as ugly as is pretended
by the Chevalier d'Arvieu, in his Voyages an Lévant, whose
testimony is in direct opposition to M. Chardin, who had
been upon the spot, whereas M. d'Arvieu never was. On
the other hand, the Samoyedes, who intermix with the
Laplanders nor with the Russians, compose a people ex-
tremely mean and ill-favoured, and absolutely bearded, al-
though we know, beyond all doubt, from the observations of M.
Klinghätt, that the Samoyedes never contract incestu-
ous marriages, as has been affected by some writers who have
been very ill informed.

In the climate of America there may exist some particu-
lar cauæ why certain species of animals are smaller than the
analogous races of our continent; such as wolves, bears,
lynxes, and some others. It is likewise in the qualities of the
soil, of the air, of the nourishment that Mr. Kemp thinks we
should seek the origin of that bafardiment which follows
among the cattle transplanted from Europe into the English
colonies on the main land, from the fortieth degree of lati-
tude to the extremity of Canada. [Hist. Nat. & Civ. de la
Pennsylvanie.] And the same thing is observed in the nor-
thern parts of Russia. As to savage man, the confusions
of food, and the little inclination he has to labour with his hands,
renders him less robust than we should be disposed to believe,
were we ignorant that it is the habit of work that principally
fortifies the muscles and nerves of the arm, as the habit of
hunting enables the Americans to sustain long marches; and
it was probably this that determined M. Fourmont to give
those nations the appellation of running nations, [Réflexions
Critiques,] though they neither run nor hunt, except when
forced to it by the mors preying necessity. For while they
have any provision of flesh preferred by broiling after their
manner, they remain day and night lying at length in their
huts, which necessity alone ever forces them to leave; and it
is well known at present, from repeated observations col-
lected in different regions, that all savages in general have so
great a propensity to idleness, that it forms one of the char-
acteristics that most distinguish them from civilized people.
To this shameful vice must be added an infatuated thirst for
spiritsuous or fermented liquors, and then we shall have a
tolerably just idea of all the excelles whereof these barbarians
are capable. Tho' who imagine that extreme intemper-
ance in drink prevails only among people situated in cold
climates are much mistaken; since we learn from all accounts,
that in the hottest as well as in the coldest climates, the
Americans are as furiously addicted to intoxication, as of-
ten as they can find an opportunity, and they would find
an opportunity if they were less indolent. But, as they cul-
tivate maize and manioc only in very small quantities, the
primary subsistence from which inflammatory liquor is ex-
tracted is frequently wanting to them; for we know that the
couin, the pivoré, the chicha, and other factitious beverages
of that nature are mostiy drawn from the flour of maize and
caffeine. The hordes that absolutely cultivate nothing at all,
as the Mocos, the Patagonians, and numberless others, em-
ploy roots, blackberries, and other wild fruits, for giving a
taste to the water, and communicating to it an inebriating
quality; which is very easily done by means of the ferme-
tation which comes on of itself. It is supposèd that the
cold and phlegmatic temperament of the Americans conducts
them more than other men to those excelles, which may be
termed, with M. Monteféliou, a national intoxication: the
liquors, however, which they brew themselves are not by far
so destructive to their health as the brandy sold to them by
the Europeans, making as much havoc among them as the
small-pox, which the Europeans likewise carried with them
into the New World, where it is particularly fatal to each
of the savages: so naked, because their epidemics, and their
mucous texture being always exposed to the air become thick,
and their pores are filled more closed by the greedy and oily
coouons with which they libate the whole body, to defend it
from the fumes of the infects, swelling in multitudes, be-
ond all imitation, in the llevels and uncultivated places:
and it is the perfection they undergo from the manigaines
and mafleces that has also taught them the use of smoking
tobacco.

The ancient accounts talk much of the extreme old age to
which the Americans attain; but it is now well known that
these exaggerations have been inserted in these narratives, and
have probably given encouragement to that ridiculous im-
potent that appeared in Europe under the name of Hulta-
zo, attempting to pass for an American aged 500 years
old. It has been remarked by us, and Dr. Bancroft has
made the same observation at Guiana in 1765, that it is impos-
sible to know exactly the age of savages, because some are
totally incapable of numerical numbers, and with others the
numerical words are scarcely carried as far as three; they have no
reguiers, nor any thing that can supply the place of them;
and, for want of calendars, they are often ignorant not only
of the day, but even the year of their nativity. In general
they live to the usual term with the rest of the species, at
least in the northern countries: for the heat between the
tropics, by exciting a continual perspiration in the body,
there abridges the course or the dream of life. Nothing is
more true, however, than that almost all the American
women bring forth without pain and with extreme facility;
so that it scarcely ever happens that any die in childbirth,
or from the consequences of it: histories relate, that before
the arrival of Pizarro and Almagro they had never heard
of midwives at Peru. Hence it has been surmised, that this
effect was only owing to a particular configuration of the
organs, and likewise to that want of sensibility observed
among the Americans, of which striking instances are found
in the relations of travellers. Almost 200 years had elapsed
before the method employed by the female savages for facili-
ting the umbilical cord of their children came to our know-
ledge: it is a great mistake to pretend that they tie it, and
then to add that it is a practice pointed out by nature to all
the nations in the world. They do not tie it, but apply a
burning coal to it, which carries off one part, and the other
shrive up to such a degree that it can never afterwards
open. If nature has taught a method of procès in this re-
pect, it must be confessed that it is a difficult matter to dif-
tinguish it from those which she has not taught.

Among the Americans very few individuals have been
found maimed or deformed from their birth; and the rea-
son is, because, like the Lacedæmonians, they had the barbarity
to destroy such children as by a vicious organization, or
some natural deformity, were incapable of procuring them-
selves a livelihood from the fishery or the chase. Besides,
as the savages have no arts, to neither have they the deceives
incident to artizans, and never diveterminate their limbs in raing
edifices or managing machines. The long journeys that
pregnant women are obliged to take, sometimes occasion
them to miscarry, but it seldom happens that the violence of the
movement maims the infant in the womb. The absolute
deficiency of all kinds of domestic cattle, and of course the
total want of all milky diet, is the reason that the American
women keep their babies a long time at the breast; and that
when they are delivered of twins, they sacrifice that which
appears to them the weakless of the two: a montrous prac-
tice, but introduced among petty roving nations, where
the
the men never take any burden that might encumber them in the chase.

Nothing is more surprising than the observations that are found in the memoirs of some travellers concerning the stupidity of the American children they have attempted to teach. Mungarre tells us: [Comment. ad Hist. Brasiliæ] that, in proportion as they approach the term of adolescence their capacities seem to contract. The miserable fate to which we know, that education is reduced in the colonies of South America, that is to say, among the Portuguese and Spaniards, might induce us to suppose that the ignorance of the masters may be sufficient to occasion that of the scholars; but we have not seen that even the professors of the university of Cambridge in New England have yet formed the minds of any young Americans, so far as to enable them to produce them in the literary world. We shall here only remark, that, in order to ascertain how far the intellectual faculties of the native Americans are extensive or confined, we ought to take their children while yet in the cradle, and conduct their education with great gentleness and patience; for after these children have contracted, during a number of years, the barbarous or savage manners of their parents, it is extremely difficult to efface from their minds those impressions that have struck the deeper root from their being the first. Besides, the experiment should not be confined to two or three subjects, but extended to a great number, since even in Europe, out of such multitudes of children as are put to study from their earliest years, such a small number of reasonable men are obtained, and a still smaller of enlightened persons. Is it, however, from a few merchants of America, from a few adventurers, guided in all their actions by the most forlorn avarice, that we are to look for these arduous attempts? Alas, we should form no such expectations.

There would be no need to mention the Creoles, as their history is not necessarily connected with that of the natives of the new continent, were it not expedient to observe, that, even granting that Thomas Gage and Coreal, or the traveller who has borrowed this name, have grossly exaggerated in their accounts of the imbecility or rather brutalization of the Spaniards born in the West Indies; [Descrip. & Voy. aux Isles occident.] it is nevertheless true, that the Creoles have been generally supposed to have undergone some alteration from the nature of the climate; and that being a misfortune and not a crime, Father Féjoo ought to have been a little more candid in what he has written in his justification, since it should seem that he never would have thought of vindicating them had he not conceived that the glory of the Spanish name was concerned. Such prejudices, however, are unworthy of a philosopher, in whose sight the glory of all the nations in the world should be as nothing, when put in the balance against truth. Readers of any penetration will easily perceive that it was neither to envy nor to any private resentment against the Spaniards that what has been seen of the alteration brought on in the temperament of their Creoles is to be ascribed, since to the full as much has been said of the Europeans, established in the North of America, as any one may convince himself by reading the history of Pennsylvania, which we have already had occasion to cite. If the Creoles had written works capable of immortalizing their name in the republic of letters, they would not have been in want of the pen and the inflated style of Jerome Féjoo to make their apology, which they alone could, and they alone ought to have done. Neither was it from want of time that they neglected it, since Coreal, who has depicted them, as we observed, in such unfavourable colours, failed for America in 1666. In short, the farther the culture proceeds in the interior of the New World, by draining the morasses, by felling the timber, and clearing the woods, the more also will the climate change and soften; which is a necessary consequence, observable from year to year; and that we may here fix exactly the period of the first observation made in this respect, we shall remark, that in the last edition of the Recherches philosophiques pour les Américains, there is a copy of a letter, by which it appears, that so long ago as the year 1677, this change of climate was already perceived, at least in the English colonies, which every one knows to have been the most pertinaciously bent on tillig and ameliorating the ground, on which the savages bestowed hardly any care; they expected all from nature, and nothing from their own industry. It is certainly a grand mistake to suppose that the abundance of game, of fish, and of fruits obtained without culture, retarded the progress of civilized life throughout almost the whole extent of America; to the northern point of Labrador, and all along the coasts of Hudson's bay, from Munk harbour to Churchill river, the fertility is extreme and incredible. Now, the small bands of the human species that have been met there, are as savage, if not more, as those that roam at the centre of Brazil, of Guiana, and all along the Maragnon and the Oroonoko, where they have found more alimentary plants, more game, more fish, and where the ice never prevents fishing in the rivers. On the contrary, it appears, that the possession of a grain so easily raised and multiplied as the maize, might have induced the Americans, in some provinces, to leave off the ambulatory life, and forgo the chase, which renders the heart of man hard and pitiless. It is, however, very certain, that some of those tribes who possessed the feed of the maize, were full anthropophagi, as the Caribs of the main land, who were seen in 1704, to eat the flesh of the Maroons that had revolted against the Dutch, in their settlements on the Berbice. (Natursgeschichte von Guiana, § 161.) Nevertheless it is known to be a fact, that these barbarians, of whom we are now speaking, cultivate not only the maize, but also the piafs, myfo paradisicus, and unhappily they are not the only ones among the Americans, who, without being compelled to it by any species of death, have defiled their tables, by serving on them pieces of human flesh, roasted on large wooden spits, or boiled in marabouts.

There is no difficulty in supposing that some travellers may have exaggerated the number of these man-eating hordes; but it is undoubtedly true that they have been found in the north, in the north, and between the tropics. The Atacamas of Louisiana, who, in 1719, ate up a Frenchman, named Charleville, dwell at the distance of more than eight hundred leagues from the district of the Caribs, in huts between the shores of the Essequibo and the Oroonoko; and then, again it is necessary to make an immense journey into the continent to arrive at the Encavellados or long-haired blacks, who likewise roast their prisoners; so that this species of barbarism is common to such nations as cannot have borrowed their manners from one another, nor have been corrupted to such a degree by the force of example.

It is not surprising that, in the immense quantity of particular supplies by the accounts concerning the religions practices of the Americans, some falsehoods should have slipped in, whereas some are already perfectly known, and others will be so in proportion as travellers shall become more enlightened than the generality have hitherto been of those who have spoken of the different parts of the New World; monks and people who had no pretensions to philosophy, in any sense that this term can be understood, have taken upon them to write things that sensible persons have repented that they
they ever read. We shall only illustrate this observation by one fact which will suffice for enabling the reader to form a judgment on many others. It has been affirmed that several savages of the southern provinces worshipped a ground or pumpkin; now let us examine how the matter stands. Just as the pretended foreseers of lands and the use of a magical drum which they beat in order to drive the devil whenever they think fit lodged in the belly of a little person whom they have not been able to compute among their ordinary remedies; so some savages in America employ a gourd, which, after extracting the pulp, they fill with pebbles; so that on shaking it a noise is produced that may be heard to a considerable distance during the night. It is natural enough that the savages who are not initiated into the jugglery, should entertain various fancies concerning this mysterious instrument, not unmixed with some degree of dread; accordingly they do not venture to touch or even to approach it; and this is the whole of the affair about the adoration of the gourd. It is to no purpose to interrogate their barbarians on the subject of practices so grofs, and many others infinitely more superstitious; the poverty of their language, of which the dictionary might be comprised in a single page, forbids all explanation. We know that even the Peruvians, though united in one sort of political society, had not yet invented terms for expressing either metaphysical beings, or the moral qualities which most distinguish mankind from brutes; as justice, gratitude, and mercy. Those qualities were in the number of things that had no name; virtue itself had none in that country on which so many exaggerations have been bestowed. Now, among the petty wandering hordes, the paucity of words is still incomparably greater, to such a degree that every species of elucidation on matters of morality and metaphysics is utterly impossible.

They are certainly mistaken who imagine that among savages religion is extremely simple, extremely pure, and that its corruptions increase in proportion as the people make farther advances in civilization. The truth is, that both savages and civilized people equally plunge into horrid and cruel superstitions, when not under the restraints of found reason; and, if even the profecution of Christianity was unable to prevent the Spaniards from afflicting their brethren to the glory of God, in the grand square of Madrid, it is a plain proof how necessary it is that the reasonable service of Christianity should be well understood. Now, it would be flying in the face of our own judgment to imagine there is much philosophy among savages, who likewise celebrate aute da fir in their way, and indeed unhappily to a great excess among the Antis, where were found huge earthen vases filled with the dried carcasses of children, who had been sacrificed to statues; and they were sacrificed in this manner, whenever the Antis celebrated an act of faith. As to those who among the savages of America are called hoyéés, faméteyés, peux, angekottés, jowan, isèhantangui, and enemus, they should more properly be denominated physicians than priests, as they are generally called; it is true, they are wont to accompany the medicines they administer to the sick, with fantastical practices, which they think adapted to calm or to expel the evil principle, to whom they seem to ascribe all the disorders that attack the human body. Instead of idly reasoning on the theology of these pretended priests, it would be acting far more wisely to engage them by presents and a generous treatment to communicate to us the characters of certain plants whereof they make great use in their medicaments; for we are not acquainted with the fiftith part of the vegetables that some of these practitioners in pharmacy carry always about them in little bags, and in which the whole of their medical knowledge consists. But the missionaries, who considered these American jugglers as their rivals, persecuted them with fury; and even whenever they have occasion to mention them in their relations, they dwell on them with abuse, which distinguishes us as much as the barbarous dulness of the style in which these accounts are written, and the prodigies, manifestly false, which they affect to be true. There has been no want of millionaires in America, but we have rarely seen among them enlightened and charitable men, taking a sincere concern in the welfare of the savages, and employing some means to reduce them. It may safely be advanced, that properly speaking, it is only the Quakers who have settled in the New World, without committing crying acts of injustice and shocking enormities. As to the Spaniards, had we no information from other quarters, we might be tempted to believe that Las Casas was striving to palliate their crimes, by rendering them absolutely incredible. He has the assurance to say, in a treatise entitled De la destrucción de las Indias Occidentales por las Castellanas, and inserted in the collection of his works, printed at Barcelona, that in forty years his countrymen massacred fifty millions of Indians. This, however, is a gros exaggeration; and the reason of his committing it to paper was, that Las Casas wanted to establish in America an order half-military and half-religious; his ambition afterwards led him to aspire to being grand master of this order, and so to raise a prodigious tribute in filter from the Americans. To convince the court of the utility of the project, which would have been useful only to himself, he swelled the number of murdered Indians to that extravagant amount.

Nevertheless, it is an undoubted fact, that the Spaniards caused a great number of savages to be torn to pieces by large hounds and a species of muliffs or bull-dogs, brought into Europe about the time of the Alains; they likewise occasioned the death of vast numbers more of these poor wretches in the mine, in the pearl-fisheries, and under the weight of burdens that could only be transported on men's shoulders, because throughout the whole extent of the eastern coast of the new continent no bend of burden or of draught was found; and it was only at Peru that any glamas were seen. In short, they exercised innumerable cruelties on the caciques and chiefs of hordes whom they suspected of having concealed any silver or gold; no discipline was observed in their small parties, composed of slaves, and commanded by men who deferred capital punishment for their crimes, and had most of them been taken from the drags of the people. It is an indisputable fact, that both Almagro and Pizarro could neither read nor write. These two adventurers were at the head of a hundred and forty foot-soldiers, a number of bulldogs, and a monk named La Valle Viridi, whom Almagro afterwards cauded to be best to death with the butt end of a mufket, in the island of Puna. Such was the army that marched against the Peruvians; as to that which went to the attack of the Mexicans, under the conduct of Cortes, it consisted of fifteen cavaliers and five hundred infantry at the utmost. Now we may form some idea of the horrors these few hundred and thirty-nine murderers must have committed at Peru and at Mexico; we may likewise get a notion of the ravages committed in the island of St. Domingo. But it is an infit to common sense to assert that they slaughtered fifty millions of inhabitants. Those who give credit to such extravagant affections, doubtfulls, have no proper conception of so great a number of mankind; all Germany, Holland, the Low Countries, with France and Spain taken together, do
...do not at the present day contain fifty millions of people. Yet if we except the interior of Spain, the earth there is tolerably well cultivated, and that by the labour of females, combined with that of the husbandman. In America nothing was cultivated by the labour of animals; accordingly we see from the journals of the Spaniards themselves, that it frequently happened that they marched for five or six days in Peru without coming to a single habitation. In the expedition to Canela, we are told by Juraba, that they made no use of their swords but in leveling the bris and brambles, to clear their passage across the most frightful defile that can be imagined. In the heart of Paraguay and Guiana, whither the little Spanish armies never penetrated, and of course committed none of the ravages that have been imputed to them, at first only forests were discovered, and afterwards forests again or petty tribes were found, often at the distance of a hundred leagues from one another. It is apparent from all that the Jesuits have published concerning the establishment of their missions, how difficult it was to bring together savages in countries more extensive than France, and where the land is better than in Peru, and not inferior to that of Mexico. If we would obtain an idea of the state of the New World at the time of its discovery, we must doubtfully study the accounts, but at the same time we should employ a more discernment and a critical severity for removing the falsehoods and prodigies with which they swindle; compilers without taste or judgment, pick up all they find in the journals of travellers, and thus form disgusting romances, which have but too much increased in our days, because it is much easier to write without reflecting than with care and meditation.

The thinnest of the population of America, and the want of courage in its inhabitants, are the true causes of the rapidity of the conquests made there; one half of the world fell, as it were, in an instant, under the yoke of the other. Those who pretend that fire-arms alone decided the victory, are greatly mistaken; since with those arms it has never yet been practicable to subdue the centre of Africa. The ancient Batavians and the Germans were for the most part naked; they had neither helmet nor cuirass; they had not even iron enough for barbing all their javelins; yet those men, supported by their valour, often fought with advantage against soldiers in coats of mail, helmets, and in short armed with instruments no less murderous than the pium of the Roman infantry. If, therefore, America had been peopled by natives as warlike as the Germans and Batav, even or eight hundred men would have never conquered from them two empires in a month. Nor can it be denied that the band commanded by Pizarro was supported by auxiliary troops, since, at the battle of Caxamalca, the Spaniards alone engaged the army of the emperor Atahualpa, and the event proved that Pizarro had no need of auxiliary forces.

It is not to be denied that by a local disposition extremely remarkable, all the great rivers, namely, La Plata, the Maraguan, the Oroonoko, the river of the north, the Missisippi, the St. Lawrence, have their mouths at the easter shore, where the Europeans must make their first landing; so that by going up these rivers they penetrated without difficulty into the heart of the continent; whereas the situation, as is well known, is quite different of Peru and Mexico, that is to say, on the western shore; and they cannot otherwise be attacked than by troops already fatigued by the long marches they have made in the interior of the country.

Whatever was the cause of it, the New World was such a desert, that the Europeans might have established themselves there without destroying any tribe of the natives; and, as they would have given the Americans iron, arts, trades, barbels, oxen, and kinds of all the other domestic animals at which they were deliterate, that would have been in some sort a compensation for the spoil of which they would have taken possession. Some civilians are known to maintain that the hunting tribes of America were not the right owners of the soil; because, according to Grotius and Launenbach, the property of a country cannot be acquired by hunting in it, by cutting wood or drawing water there; nothing but the precise demarcation of limits, and the intention of cultivating, or culture already begun, can establish the possession. We take the liberty, however, to differ widely from this opinion, and think that the hunting nations of America were well authorized to assert that they were, as has been observed above, the absolute owners of the soil; because, in their method of living, the chase is equivalent to culture; and the construction of their huts is a title against which Grotius, Launenbach, Titius, and all the civilians of Europe, cannot be appealed to without rendering the apppellant ridiculous. It is allowed, that in places where there was already some sort of culture, the right was still more incontrovertibly founded; and it is exceedingly hard to conceive how it could ever come into the head of pope Alexander VI. to grant, by a bull of the year 1493, the whole of the continent, with all the islands of America, to the king of Spain. Yet he did not think he was disposing of uncultivated and uninhabited regions, since he specifies in his donation both towns and castles, civitates &ca. in perpetuum, tenore presentium, donamus. It may be replied, that this act was only ridiculous; yes, it is precisely, because it was ridiculous that it ought not to have been made, to avoid giving room to weak minds to imagine that the sovereign pontiffs have contributed as much as lay in their power to all the depredations and to all the massacres that the Spaniards have committed in America, where they cited this bull of Alexander VI. whenever they poignarded a cacique and usurped a province. The court of Rome should have solemnly repealed this act of donation, at least after the death of Alexander VI.; but unfortunately we cannot find that it ever thought of taking this step in favour of religion.

Another remarkable circumstance is, that some divine maintainers, in the 16th century, that the Americans were not men; and it was not merely the want of a beard, and the nudity of the savages, that led them to adopt the sentiment, but the accounts they received concerning the anthropophagi, or the cannibals. This is manifest by a letter still extant of Lullus: the western Indians, says he, have nothing of the reasonable animal except the milk; they fearfully know how to speak, and are not acquainted either with honour, or modestly, or probity; no ferocious animal is so ferocious as they; they devour one another, tear their enemies into morsels, suck their blood, and always have enemies; for wars are eternal among them, and their vengeance knows no bounds. The Spaniards who frequent them, continue he, become infamously as perverses, as malicious, as atrocious as themselves, whether it be from the force of example, or whether it proceeds from the influence of the climate: adeo corrupuntur illi mores, sive id accidit exemplo incolarum, sive egni natura. There is no reason, however, to think that the climate has any influence in this matter; since we have already observed, that in the hottest countries, as under the equator, and in the coldest, as beyond the fifty-third degree, we have alike seen barbarians devour their prisoners, and celebrate in horrible fongs the memory of their ancestors, who feasted in like manner at similar banquets.
in regard to the first people of America, and whence they came to recite the various opinions that have been advanced would lead us greatly beyond our purpose. The subject has been copiously and elaborately investigated by the abbe Clavigero and Dr. Robertson, and we may reasonably content ourselves with the result of their inquiries. The latter, after recapitulating and discoursing the most plausible opinions on the subject, comes to the following conclusions: 1. That America was not peopled by any nation from the ancient continent, which had made any considerable progress in civilization; because, when America was first discovered, its inhabitants were unacquainted with the necessary arts of life, which are the first effects of the human mind toward improvement; and if they had ever been acquainted with them, for instance, with the plough, the loom, and the forge, their utility would have been so great and obvious, that it is impossible they should have been lost. Therefore the ancestors of the first settlers in America were uncivilized, and unacquainted with the necessary arts of life.

2. America could not have been peopled by any colony from the more southern nations of the ancient continent; because none of the rude tribes of these parts possessed enterprise, ingenuity, or power, sufficient to undertake such a difficult voyage; but more especially because that, in all America, there is not an animal, tame or wild, which properly belongs to the warm or temperate countries of the eastern continent.

In short, from these and several other arguments, he thinks it reasonable to conclude, that the progenitors of all the American nations, from Cape Horn to the southern limits of Labrador, from the similarity of their aspect, colour, &c. migrated from the north-eastern parts of Asia; and that the nations that inhabit Labrador, Esquimaux, and the parts adjacent, from their likeness to the American nations, and their resemblance to the northern Europeans, came over from the north-westerly parts of Europe. His Hift. of America, vol. ii, p. 22, &c.

On the other hand, the abbe Clavigero, a native of America, and a later writer than Dr. Robertson, is of opinion, that there remains no other solution to this intricate question than by admitting an ancient union between the equinoctial countries of America and those of Africa, and a connection of the northern countries of America with Europe on the east and Asia on the west; so that there has probably been a period since the flood when there was but one continent. The beasts of cold climates passed over the northern illimuses which perhaps connected Europe, America, and Asia; and the animals and reptiles peculiar to hot countries passed over the illimuses that connected South America with Africa; for, from various reasons, he is induced to believe, that there was formerly a tract of land uniting the eastern part of Brazil to the westerly part of Africa; and that all the tract of land may be sunk by some violent agitation of nature, leaving only some traces of it in that chain of islands whereof Cape de Verd, Fernandez, De Norona, Ascension, and St. Matthew islands make a part; and also in those numerous sand-banks discovered by different navigators, and particularly by de Buache, who founded that sea with great accuracy. These islands and sand-banks may probably have been the most elevated parts of that immerged illimuses. In like manner it is probable, that the north-westerly part of America was joined to the north-easterly part of Asia by a neck of land which has been sunk or washed away; and the north-easterly parts of America to the north-westerly parts of Europe, by Greenland, Iceland, &c.

On the whole, we cannot but believe that the quadrupeds and reptiles of the New World passed thither by land, and by different routes, from the old continent. All other suppositions are subject to enormous difficulties; and, though this be not without force, yet they are not altogether unmountable. The most formidable is the supposition of an earthquake, so violent as to submerge a tract of land of more than 1500 miles in length, which, according to our hypothesis, united Africa and South America. We do not, however, ascribe this stupendous revolution to a single shock; it may have been effected by a succession of earthquakes. It is well known that these convulsions are common in the climates where we suppose these illimuses to have been. Neither is it impossible, nor even improbable, that such an effect should be produced by earthquakes; nor is illimitation any means delusive of examples to our purpose. The earthquake that was felt in Canada, in 1665, overturned a chain of freestone mountains upwards of 300 miles in length, converting the whole of that immense tract into one entire plain. And how prodigious must have been the convolution occasioned by those extraordinary earthquakes recorded in the histories of America, when the world was thought to be on the verge of dissolution!

It may farther be objected to this system, continues the abbé, that if bears traversed by land from one continent to the other, it will be a easy matter to affix a cause why some species passed thither without leaving a single individual behind them on the old continent; and, on the contrary, that some entire species should remain in the old continent, and not a single individual of them emigrate to America. But this objection operates with equal force against every other opinion, excepting that which employs angels in transporting beasts. Supposing, however, that it did not, we have a satisfactory answer to it. All the quadrupeds of the earth are not yet known; we cannot, therefore, affirm how many are in the one which are not in the other continent. The knowledge of the best informed zoologists is very imperfect, and they differ among themselves. The count de Buffon enumerates only two hundred species of quadrupeds. Bomare, who wrote a short time after him, makes them amount to 265; but to say how many more there may be, and of what kinds, until we have explored the interior regions of Africa, a great part of Tartary, the country of the Amazons, the wild territory west of the Mississippi, and various other unexplored and extensive countries, which, together constitute a great proportion of the entire globe, would be mere conjecture. No argument, therefore, can be inferred from the difference of the animals in the two continents against our system, till the animals in these unexplored regions shall have been examined. Abbé Clavigero's Hift. of Mexico, vol. ii. diff. 1.
We have dwelt the longer on this article, as it must be highly interesting to every inquisitive mind, and the discussion of it is blended with much useful information.

**AMERICA.** In Geography, or the New World, or the West Indies, is one of the four quarters of the globe, bordered by the ocean, discovered by Christopher Columbus, a Genoese, in 1492, and delineated America, from America Velutina, a Florentine, who landed, in 1496, on that part of the continent, situated to the south of the equator; after which it fell principally under the dominion of the Spaniards, the English, the French, the Portuguese, and the Dutch. It is divided into north and south by the gulf of Mexico and the Straits of Panama. North America, as far as it is known, extends from the 11th degree of latitude, or 7° 30′, as marked in the map of Lazzarzi, to the 57th, or, as others state it, to the 72d. Its principal countries are Mexico, California, Louisiana, Virginia, Canada, Newfoundland, the islands of Cuba, St. Domingo, and the Antilles. South America reaches from the 14th degree of north to the 60th degree of south latitude, or, if the limit of Magallanes be the limit, to the 54th; its countries are, Terra Firma, Peru, Paraguay, Chili, Terra Magellania, the Brazils, and the country of the Amazons. America, in length from N. lat. 72° to S. lat. 54°, comprehends 1263, or 7560 geographical miles, or in British miles about 8560. The greatest breadth of South America from Cape Blanco west, to that of St. Roque east, is 45°, or 2850 geographical miles; but in the North, from the promontory of Alaska to the most eastern point of Labrador, or even Greenland, a third part must be added. Supposing the breadth of North America to be 3840 geographical miles, the average breadth will be about 3360 geographical miles, or nearly 4000 British miles. This extensive continent lies between the Pacific ocean on the west, and the Atlantic on the east, and is said to contain upwards of fourteen million of square miles.

**South America.** The population of which is estimated at about 12,000,000, is an extensive peninsula, connected with North America by the istmus of Darien, and divided between Spain, Portugal, France, Holland, and the Aborigines, as follows:

<table>
<thead>
<tr>
<th>Spanish Dominions</th>
<th>Chief Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terra Firma, Peru, Chili, Paraguay</td>
<td>Panama and Carthagena, Lima, St. Jago, Buenos Ayres</td>
</tr>
</tbody>
</table>

*Portuguese, equal, probably in extent to the Spanish.*

<table>
<thead>
<tr>
<th>Brazil, French, Dutch, Surinam, Aborigines, Amazonia, Patagonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazilian, Cayenne, Paramaribo,</td>
</tr>
</tbody>
</table>

The climate of Terra Firma, especially in the northern parts, is extremely hot and sultry during the whole year. From the month of May to the end of November, the forest, called Winter by the inhabitants, is almost a continual succession of thunder, rain, and tempests; the clouds precipitating the rain with such impetuosity, that the low lands exhibit the appearance of an ocean. Great part of the country is of consequence almost continually flooded; and this, together with the excessive heat, so impregnates the air with vapours, that in many provinces, particularly about Papayan and Portobello, it is extremely unhealthy. The soil of this country is different; the inland parts being exceedingly rich and fertile, while the coasts are sandy and barren. It is impossible to view, without admiration, the perpetual verdure of the woods, the luxuriance of the plains, and the towering height of the mountains. This country produces corn, sugar, tobacco, and fruits of all kinds; the most remarkable is that of the maizamulito tree: it bears a fruit resembling an apple, but which, under this appearance, contains the most subtle poison. The bean of Carthagena is the fruit of a species of willow, about the bigness of a bean, and is an excellent remedy for the bite of the most venomous serpents, which are very frequent all over this country. Among the natural merchandise of Terra Firma, the pearls found on the coast, particularly in the bay of Panama, are not the least considerable. An immense number of Negro slaves are employed in fishing for these, and have arrived at a wonderful dexterity in the occupation. They are sometimes, however, devoured by sharks while they dive to the bottom, or are crushed against the shelves of the rocks. This country was called Terra Firma, on account of its being the first part of the continent which was discovered, all the lands found previous to this being islands.

From the situation of Peru, which is within the torrid zone, one would suppose it to be uninhabitable; but the Andes, those lofty mountains, being on one side, and the South Sea on the other, it is not so prodigiously hot as tropical countries in general are; and in some parts it is disagreeably cold. In one part are mountains of a stupendous height and magnitude, having their summits covered with snow; on the other, volcanoes flaming within, while their tops, chafins, and apertures are involved in ice. The plains are temperate, the beaches and valleys hot; and lastly, according to the disposition of the country, its high or low situation, we find all the various gradations of temperature between the extremes of heat and cold. It is remarkable, that in some places it never rains, a defect supplied by a dew that falls every night, and sufficiently refreshes the vegetable creation; but in Quito they have prodigious rains, attended by dreadful storms of thunder and lightning. In the inland parts of Peru, and by the banks of the rivers, the soil is naturally very fertile; but along the sea-coast it is a barren land.

The climate of Chile is one of the most delightful in the world, being a medium between the intense heats of the torrid and the piercing colds of the frigid zones. Along the coast of the Pacific ocean, they enjoy a fine temperate air, and a clear, serene sky most part of the year; but sometimes the winds that blow from the mountains in Winter are exceedingly sharp. There are few places in this extensive country where the soil is not exuberantly rich; and were its natural advantages seconded by the indulgence of the inhabitants, Chile would be the most popular kingdom in America. Some parts of Paraguay, situated as it is, must be extremely hot by reason of the almost vertical influence of the solar rays; while districts must be pleasant and delightful. The heat is in some measure, however, mitigated by the gentle breezes, which generally begin at about nine or ten in the morning, and continue the greatest part of the day. Some tracts of the country are very mountainous; but in many others are found extensive and beautiful plains, where the soil is very rich, producing cotton, tobacco, and the valuable herb called paragua, together with a variety of fruits. Here are also extremely rich pastures, in which are bred"
such herds of cattle, that it is said, the buffaloes are the only part exported, while the thistledown is left to be burned by the ravenous beasts of the wilderness. Not long since a borie might be purchased here for one dollar, and an ox, chosen out of several hundreds, for a still more trifling sum.

The climate of Brazil, or Brasil, has been described by two eminent naturalists, Piso and Maregrave, who made their observations with a Philosophical accuracy, and describe it as temperate and mild, when compared with that of Africa; but, putting this circumstance chiefly to the refreshing winds that blow continually from the sea. The air is not only cool, but chilly through the night, so that the natives kindle a fire every evening in their huts. As the rivers in this country annually overflow their banks, leaving a foot of slime upon the lands; the soil here is therefore admirably rich. The vegetable productions are Indian corn, sugar-canes, tobacco, indigo, hides, ipecacuanha, balman, Brazil-wood, which is of a red color, hard and dry, and is chiefly used in dyeing, though not the red of the kind kind. Here is also the asafoetida, or asa in dyeing yellow, and a beautiful speckled wood employed in cabinet work. They have five different sorts of palm trees, fame curious ebony, and a great variety of cotton trees. This country abounds in horned cattle, which are hunted for their hides alone, 20,000 being sent annually into Europe. Deer, hares, and other game are likewise in great plenty. Amongst the wild beasts found here, are tigers, porcupines, guanouars, and a fierce animal somewhat resembling a greyhound; monkeys, sloths, and the topirallia, a creature between a bull and an aha, but without horns and entirely harmless; the flesh is very good, and has the flavor of beef. The country abounds with a numberless variety of fowl, both wild and tame; and among them turkeys, fine white hens and ducks: also plenty of fish, insects, and serpents.

Of Cayenne, the land along the coast is very low, and greatly subject to inundations during the rainy season, from the multitude of rivers which run down from the mountains with great impetuosity. Here the atmosphere is sultry, moist, and unwholesome, especially where the woods are not cleared away; but on the higher parts, where the trees are cut down, and the ground is laid out in plantations, the air is more healthy, and greatly tempered by the sea breezes. The soil in many parts is rich and fertile, producing sugar, tobacco, maize, fruits, and other necessaries of life.

In the months of September, October, and November, the climate of Surinam is unhealthy, particularly to strangers. The common diseases are erysipelas and other fevers, the dry belly-ache and the droopy. About a hundred miles within land from the sea, a quite different soil is seen, a hilly country, a pure, dry, wholesome air, where a fire sometimes would not be disagreeable. Along the coast the water is brackish and unwholesome, the air damp and sultry. The thermometer ranges from 75° to 95° throughout the year. A north-east breeze never fails to blow from about nine in the morning through the day, in the hottest season. As the days and nights throughout the year are very nearly of equal length, the air can never become extremely heated, nor the inhabitants greatly incomforted by the heat, as those who live at a greater distance from the equator. The fevers formerly were divided regularly into rainy and dry; of late years, however, so much dependence cannot be placed upon them, owing, probably, to the country being more cleared, by which means a free passage is opened for the air and vapours.

The air in Amazonia is cooler than might be expected, considering it is situated in the torrid zone. This is partly owing to the heavy rains which occasion the rivers to overflow for one half of the year, and partly to the haziness of the weather, which obscures the fine part of the time he is above the horizon. During the rainy season the country is subject to dreadful storms of thunder and lightning. The soil is extremely fertile, producing cacao-nuts, annato, plantains, and a great variety of tropical fruits; cedar, redwood, pison, ebony, logwood, and many other sorts of dying wood, together with tobacco, ipecacuanha, cotton, potatoes, balman, honey, &c. The woods abound with tigers, wild boars, buffaloes, deer, and game of various kinds. The rivers and lakes teem with fish. Here are also sea-cows and turtles; but the crocodiles and water-serpents render fishing a dangerous employment.

The climate is said to be much colder in Patagonia than in the north under the same parallels of latitude; a circumstance ascribed to its being in the vicinity of the Andes, which cloths it, and are covered with eternal snow. It is a most impossible to say what the soil would produce, it not being at all cultivated by the natives. The northern parts are covered with wood, among which is an inexhaustible fund of large timber; but towards the south it is said not to produce a single tree big enough to be of use to mechanics. There are, however, good piaulures which give food to incredible numbers of horned-cattle and horfes, first carried thither by the Spaniards, and since increased to an amazing degree.

North America, bounded on the east by the Atlantic, and on the west by the Pacific ocean, extends on the south to the vicinity of Panama; the province of Veragua being universally considered as part of North America. According to the maps of Lopez, a chain of mountains runs north and south, called Sierras de Caravagua, and terminates in the point of Angra; which, dividing the provinces of Panama and Veragua, forms a natural boundary between North and South America. Its northern limit is not precisely ascertained; but from 72° N. lat., ascertained as the northern limit, to 78.30', the southern boundary, there will be an interval of 6,250, or 3,870 geographical miles, from what more than 4,500 British. Its breadth is very different in different parts. Those parts of North America not inhabited by Indians or Spanish, are Xew England and the United States, of which the States, excluding Greenland, belong to Denmark.

The remaining part forms the territory of the fifteen United States; the particular countries and provinces whereof are exhibited in the following view:

<table>
<thead>
<tr>
<th>Territory</th>
<th>Inhabitants</th>
<th>Chief Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Denmark belongs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenland,</td>
<td>10,000</td>
<td>New Herrnhut.</td>
</tr>
<tr>
<td>British Provinces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Britain,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Canada</td>
<td>20,000</td>
<td>Kingston, Detroit, Niagara.</td>
</tr>
<tr>
<td>Lower Canada</td>
<td>150,000</td>
<td>Quebec, Montreal.</td>
</tr>
<tr>
<td>Cape Breton Island</td>
<td>1000</td>
<td>Sydney, Louiburg.</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>55,000</td>
<td>Frederick-town.</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td></td>
<td>Halifax.</td>
</tr>
<tr>
<td>St. John's Island</td>
<td>500</td>
<td>Charlotte-town.</td>
</tr>
<tr>
<td>in 1783</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newfoundland Island</td>
<td>7,000</td>
<td>Placentia, St. John's.</td>
</tr>
</tbody>
</table>
United States of America.

<table>
<thead>
<tr>
<th>State</th>
<th>Inhabitants</th>
<th>Chief Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vermont</td>
<td>85,430</td>
<td>Windor, Rutland</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>141,582</td>
<td>Portsmouth, Concord</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>387,407</td>
<td>Boston, Salem, Newbury-port</td>
</tr>
<tr>
<td>District of Maine</td>
<td>92,340</td>
<td>Portland, Hallowell</td>
</tr>
<tr>
<td>Rhode island</td>
<td>68,374</td>
<td>Newport, Providence</td>
</tr>
<tr>
<td>Connecticut</td>
<td>237,016</td>
<td>Newhaven, Hartford</td>
</tr>
<tr>
<td>New York</td>
<td>342,017</td>
<td>New York, Albany</td>
</tr>
<tr>
<td>New Jersey</td>
<td>184,019</td>
<td>Trenton, Burlington, Brum-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wick</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>343,173</td>
<td>Philadelphia, Lancaster</td>
</tr>
<tr>
<td>Delaware</td>
<td>59,094</td>
<td>Dover, Wilmington, Newcas-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tle</td>
</tr>
<tr>
<td>Maryland</td>
<td>310,728</td>
<td>Annapolis, Baltimore</td>
</tr>
<tr>
<td>Virginia</td>
<td>747,010</td>
<td>Richmond, Petersburg, Nor-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>folk</td>
</tr>
<tr>
<td>Kentucky</td>
<td>705,577</td>
<td>Lexington</td>
</tr>
<tr>
<td>North Carolina</td>
<td>121,751</td>
<td>Newbern, Edenton, Halifax</td>
</tr>
<tr>
<td>South Carolina</td>
<td>219,073</td>
<td>Charleston, Columbia</td>
</tr>
<tr>
<td>Georgia</td>
<td>82,458</td>
<td>Savannah, Augusta</td>
</tr>
<tr>
<td>Territory of Ohio</td>
<td>32,691</td>
<td>Abingdon</td>
</tr>
<tr>
<td>Territory N.W.</td>
<td></td>
<td>Marietta</td>
</tr>
</tbody>
</table>

Belonging to Spain.

<table>
<thead>
<tr>
<th>State</th>
<th>Inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Florida</td>
<td>Auguilla</td>
</tr>
<tr>
<td>West Florida</td>
<td>Pinnaca</td>
</tr>
<tr>
<td>Louisiana (ceded to the United States)</td>
<td>New Orleans</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Santa Fé</td>
</tr>
<tr>
<td>California</td>
<td>St. Juan</td>
</tr>
<tr>
<td>Mexico, or New Spain</td>
<td>Mexico</td>
</tr>
</tbody>
</table>

North America. In History. America was originally peopled by uncivilized nations, who lived mostly by hunting and fishing. The Europeans who first visited these shores, treating the natives as wild beasts of the forest, which have no property in the woods where they roam, plumed the standard of their respective nations wherever they happened first to land, and in their name claimed the country by right of discovery. Prior to any settlement in North America, titles of this kind were set up by the English, French, Spanish, and Dutch navigators, who came hither for the purpose of fishing and trading with the natives. Though as fast titles were, they afterwards became causes of contention between the European nations. The subjects of different princes often laid claim to the same tract of country, because both had discovered the same river or promontory, or because the extent of their respective claims was undetermined.

While the settlements in this vast uncultivated country were inconsiderable and scattered, and the trade of it confined to the bartering of a few trinkets for furs, a trade carried on by a small number of adventurers, the interference of chiefs produced no important controversy, either among the settlers or the nations of Europe. But in proportion to the progress of population and the growth of the American trade, the jealousies of the nations which had made early discoveries and settlements on this coast were alarmed; ancient claims were revived; and each power took measures to extend and secure its own possessions at the expense of a rival.

By the treaty of Utrecht, in 1713, the English claimed a right of cutting logwood in the bay of Campeche in South America. In the exercise of this right the English merchants had frequent opportunities of carrying on a contraband trade with the Spanish settlements on the continent. To remedy this evil the Spaniards resolved to annihilate a claim which, though often acknowledged, had never been clearly ascertained. To effect this design they captured the English vessels which they found along the Spanish main; and many of the English subjects were doomed to work in the mines of Potosi.

Repeated severities of this kind at length, in 1739, occasioned a war between England and Spain, which terminated in 1748 by the treaty of peace signed at Aix-la-Chapelle, in which restitution was made on both sides of all places taken during the war.

Peace however, was of short duration. The French policed Canada, and had made considerable settlements in Florida, claiming the country on both sides the Mississippi by right of discovery. To secure and extend their claims they constructed a line of forts from Canada to Florida. They had secured the important pass at Niagara, and erected a fort at the junction of Allegheny and Monongahela rivers, called Fort du Quesne. They took pains to secure the friendship and alliance of the natives; encroachments were made upon the English possessions, and mutual injuries succeeded. The disputes among the settlers in America, and the measures taken by the French to command all the trade of the river St. Lawrence on the north, and of the Mississippi on the south, excited a jealousy in the English nation, which soon broke forth in open war. This war was carried on with various successes, till a decisive blow, which proved fatal to the interests of the French in America, put an end to it in 1762. This was the defeat of the French army, and the capture of Quebec, by the brave general Wolfe. That hero was slain at the beginning of the action on the plains of Abraham, and M. Montcalm, the French commander, likewise lost his life. The loss of Quebec was soon followed by the surrender of Montreal to general Amherst, and Canada has remained ever since in possession of the English.

In 1763, a definitive treaty of peace was concluded at Paris between Great Britain, France, and Spain, by which the English ceded to the French several islands which they had taken from them in the West Indies, but were confirmed in the possession of all North America on this side the Mississippi, except the island of Orleans.

No sooner was peace concluded than the British parliament adopted the plan of taxing the colonies; and to justify their attempts, declared that the money to be raised was to be appropriated to defray the expense of defending them in the late war. The first attempt to raise a revenue in America appeared in the memorable stamp act, passed March 22, 1765, whereby it was enacted, that certain instruments in writing, as bills, bonds, &c. should not be valid in law, unless drawn on blank paper, on which a duty was laid.

Immediately as this act was published in America it raised a general alarm. The people were filled with apprehensions at an act which they supposed to be an attack on their constitutional rights. The colonies therefore petitioned the king and parliament for a redress of the grievances, and at the same time entered into associations for the purpose of preventing the importation and use of British manufactures until the obnoxious act should be repealed. This spirited and unanimous opposition of the Americans produced the desired effect; and on the 18th of March, 1766, the stamp act was repealed. The news of the repeal was received in the colonies with universal joy, and the trade between them and Great Britain was renewed on the most liberal footing.

The parliament, however, by repealing this act, so odious to their American brethren, by no means intended to lay aside the scheme of raising a revenue in the colonies, but merely to alter the mode. Accordingly, the next year they passed an act, imposing a certain duty on glass, tea, paper, and painters' colours; articles which were much wanted, and not manufactured in America. This act, as might reasonably have
have been stated after what had been said of the representation of the Americans, and created a general opinion to the contrary, so that the parliament, advisedly, in 1770, passed a tax on tea. Nevertheless, this tax, however trifling, kept alive the jealousy of the colonies, and their opposition to parliamentary taxation continued increasing from day to day.

It will be easily conceived that the inconvenience of paying the duty was not the only or even principal cause of the opposition; it was the principle, which, once admitted, would have subjected the colonies to unlimited parliamentary taxation, without the privilege of being represented. The right, abstractly considered, was denied; and the slightest attempt to justify the claim by precedent was uniformly repulsed. Nor could the Americans be deceived as to the views of parliament; for the repeal of the stamp act had been accompanied with an unequivocal declaration, that "the parliament had a right to make laws of sufficient validity to bind the colonies in all cases whatsoever."

The colonies, therefore, entered into measures for encouraging their own manufactures and home productions, and for retrenching the use of foreign superfluities, while the importation of tea was prohibited. In the royal and proprietary governments, and in Massachusetts, the governors and people were in a state of continual warfare. Assemblies were repeatedly called and suddenly dissolved; employing the time while sitting in flaring grievances and framing remonstrances. As if to inflame these discontentments an act of parliament was passed, empowering, that the governors and judges should receive their salaries of the crown; thus rendering them independent on the provincial assemblies, and removable only at the pleasure of the king. These proceedings, with many others of a similar tendency, could not fail to produce a rupture.

In 1772, the spirit of the Americans broke out into open violence. The Gaffee, an armed schooner belonging to his Britannic Majesty, had been stationed at Providence, in Rhode Island, to prevent smuggling. The vigilance of the commander irritated the inhabitants to such a degree, that about 200 armed men boarded the vessel under favor of the night, compelled the officers and crew to go ashore, and set fire to the schooner. A reward of $500 offered by government for apprehending any of the persons concerned in this daring act, produced no effectual discovery.

The resolution of the colonies not to import or consume any tea, having, in a great measure, deprived the English government of a revenue from this quarter, the parliament formed a scheme of introducing tea into America under cover of the East India Company. For this purpose an act was passed, empowering the company to export all sorts of teas, duty free, to any place whatever. The company departed from their usual mode of transacting business, and became their own exporters. Several ships were freighted with teas, and sent to the American colonies, and factors were appointed to receive and dispose of their cargoes.

The Americans, determined to oppose the revenue system of the English parliament in every possible shape, contrived the attempt of the East India Company to evade the resolution of the colonies, and dispose of teas in America, as an indirect mode of taxation, sanctioned by the authority of parliament. The people assembled in various places, and, in the large commercial towns, took measures to prevent the landing of the teas. In Massachusetts they in like manner viewed the tea as a vehicle of an unconstitutional tax, and as inseparably associated with it. To avoid the one they resolved to destroy the other. About 17 persons, drest as Indians, repaired to the tea ships, broke open 542 chests of tea, and, without doing any other damage, discharged their contents into the water.

No sooner did the tidings of this destruction of the tea reach Great Britain than the parliament determined to punish that devoted town. A bill was brought in and passed, to "discontinue the loading and unloading, landing and flitting of goods, wares, and merchandize at the town of Boston, or within the bounds thereof." This act, passed March 26, 1774, and called the Boston port bill, threw the inhabitants into the greatest consternation. The town of Boston passed a resolution expressing their sense of this oppressive measure, and a desire that all the colonies would concur to stop all importations from Great Britain. Most of them entered into spirited resolutions on this occasion, to unite with Massachusetts in a firm opposition to the unconstitutional measures of parliament.

But the port bill was not the only act that alarmed the apprehensions of the Americans. Determined to compel the province of Massachusetts to submit to their laws, parliament passed an act for "the better regulating the government in the province of Massachusetts." The object of this act was to alter the government as it stood on the charter of King William, and to make the sheriffs and judges dependent on the king, and removable at his will and pleasure.

The act was followed by another, which ordained, that any person indicted for murder, or other capital offence, committed in aiding the magistrates in executing the laws, might be tried by the governor, either to any other colony, or to Great Britain, for his trial. This was shortly after succeeded by the Quebec bill, which enlarged the bounds of that province, and granted many privileges to the Roman Catholics. The view of this act was to secure the attachment of that province to the crown of England, and prevent its joining the colonies in their refusals to the laws of parliament.

All these steps, however, far from intimidating, rather exasperated the Americans, by confirming them in their former apprehensions of the evil designs of government, and furred only to unite the colonies in a more determined opposition. A correspondence of opinion, in respect to these acts, produced a uniformity of proceedings in the colonies. The people generally concurred in the proposition for holding a congress, in order to concert measures for the preservation of their rights. Deputies were accordingly appointed, and met at Philadelphia on the 26th of October, 1774.

Preparations now began to be made to oppose by force the execution of these acts of parliament. The militia of the country were trained to the use of arms; and great encouragement was given to the manufacture of gunpowder, and measures were taken to obtain all kinds of military stores. At Lexington the first blood was shed in the war; a war which feved America from the British empire. Here was opened the first scene of the great drama, which, in its progress, exhibited the most illustrious characters and events, and closed with a resolution equally glorious for the actors, and important in its consequences to mankind.

In July, congress published their declaration of independence, which separated America from Great Britain. This grand event took place 28.4 years after the discovery of America by Columbus; 166 from the first effectual establishment in Virginia, and 156 from the first establishment of Plymouth in Massachusetts, which were the earliest English settlements in America.

On the 30th of November, 1782, the provisional articles of peace and reconciliation, between Great Britain and the American states, were signed at Paris; whereby the former acknowledged the independence and sovereignty of the United
United States of America. These articles were ratified by a
definitive treaty, September 7, 1783. Thus ended a long
and arduous conflict, in which Great Britain expended near a
hundred millions of money, with a hundred thousand lives,
and gained nothing. America endured every cruelty and dis-
tress from her enemies, lost many lives and much treasure,
but delivered herself from a foreign dominion, and established
a rank among the nations of the earth. Holland acknow-
lledged the independence of the United States of America on
the 19th of April, 1782; Sweden February 5, 1783; Den-
mark the 23rd of February; Spain in March, and Russia in
July, of the same year. On the 30th of April, 1789, George
Washington was inaugurated president of the United States
of America, in the city of New York.

Hitherto the deliberations of the Union have been marked
with wisdom, and the measures they have adopted have been
productive of great national prosperity.

To conclude, the United States, and indeed all parts of
North America, seem to have been formed by nature for the
most intimate union; as it may truly be affirmed, that no part
of the world is so well watered with springs, rivulets, rivers,
and lakes, as the territory of the United States. By means
of these various streams and bodies of water, the whole
country is chequered into islands and peninsulas. The fa-
cilities of navigation render the communication between the
gates of Georgia and New Hampshire far more expeditious
and practicable than between those of Provence and Picardy
in France, Cornwall and Caithness in Great Britain, or Gal-
licia and Catalonia in Spain. The canals opening between
Suquehanna and Delaware, between Patuxent and Eliza-
beth rivers, in Virginia, and between the Schuylkill and Su-
quenna, will form a communication from the Carolinas to
the western counties of Pennsylvania and New York. The
improvement of the Patomak will give a pallage from the
southern lakes to the western parts of Virginia, Maryland,
Pennsylvania, and even to the lakes. From Detroit to Alexan-
dria, on the Patomak, 607 miles, are only two carrying places,
which together do not exceed the distance of 40 miles. The
canals of Delaware and Chesapeake will open the communi-
cation from South Carolina to New Jersey, Delaware, the most
populous parts of Pennsylvania, and the midland counties of
New York. Were these, and the canal between Ashley and
Cooper rivers, in South Carolina, the canals in the northern
parts of the state of New York, and those of Massachusetts
and New Hampshire, ill opened, and many of them are in
great forwardness, North America would thereby be con-
verted into a cluster of large and fertile islands, communicating
easily with each other, at little expense, and in many in-
fluences without the uncertainty or danger of the seas.

From the numerous competitions in every branch of bu-
niness in Europe, success in any pursuit may be looked upon
in the same light as a prize in a lottery. But the cafe is widely
different in America. Here is room enough for every human
talent and virtue to expand and flourish. This is so invariably
truethey are generally believed there is not an infirmity to
be bound of an invidious, frugal, prudent European, with
other manners, who has not been successful in business in that
country.

American Earth Nut, in Botany. See Arachis.
American Grifts. See Acrostis.
AMERICANA, in Entomology, a species of Chryso-
mbella that inhabits America; a variety of it is found in the
south of France. The general colour is greenish gold, with
five fangunieous red lines upon the wing cæsae. Fab. &
Gmel. "Feeds on the lavandula. A red spot on the head is
a secondary distinction of this species.

AMERICANORUM, a species of Apis, described by
Fabricius as a native of North America. It is harry and
black; anterior part of the thorax yellow; abdomen yellow,
black at the end. Fab. Spec. Inf. Ous. Fabricius, in
his last work, "Entomologia Systematica," gives the apis
americanorum precisely the same specific character as he had
previously assigned to apis africana, so that at present they
are both described as "hirsuta nigra, thoracis dorso flavo,
abdomine virgente: Segmento primo flavo." To increase
the confusion, the latest editor of the "Linnæan Syl. Nat."
Gmelin, adopts the same error; apis africana, p. 2780, and
apis americanorum, p. 2784, and the description in the Spec.
Inf. of Fab. is only added as a synonym to the latter. It is
probable they are both the same species.

AMERICIMA, in Zoology, a name given by some early
naturalists to a small kind of lizard found in Brazil. The
precise species is uncertain; it is said to be very small; not
above three fingers breadth long, and of the thickness of a
fian’s quill. Its body appears square; its whole back is
covered by deep grey scales; its head, legs, and sides with
brown ones; and its tail with blue. It is very glosy, the legs
extremely slender, and it is generally esteemed poisonous.

AMERIGO, or AMERICUS VESPUCELLUS. See VES-
pucci.
AMERIMNUN, or AMERINNON, in Botany, a genus of
the diophila decandria claus and order, of the natural
order of papilionaceae or leguminosa; the characters of which
are, that the calyx is a one-leaved perianthium, tube bell-
shaped, five-toothed, the teeth sharp; the corolla paphilone-
cus, standard with an oblong claw, roundish heart-shaped,
expanding and convex, wings lanceolate, shorter than the
standard, and keel short; the flamina have 10 filaments con-
joined, anthers roundish; the pistillum has a germ pedicelled,
oblong, compressed leafy, varicoce, with lateral veins, within
woody, not gaping; cells disposed longitudinally within;
the seed solitary, kidney-shaped, thicker at the base, appended
at the top. There are two species, viz. 1. A. BROWIUS,
"unarmed, with leaves petioled, alternate, subcordeate-ovate;
racemes compound, axillary, and lateral.
"This shrub rises commonly to the height of ten feet, and supports itself on other shrubs. It is a native of Carthage, Jamaica, and
Dominio. 2. A. oblonga, prickly A. or Jamaica ebony,
pierocarpus felliiholos of Lin. p. busblos of Murray and
Aston, afpalathus ebucus of Lin. Spec. and Reich. brya
Browne Jamaic. Spartium arborefrons of Miller and Sloane;
"spiny, with leaves fiddle, aggregate, obvate-oblung, and
peduncles two-flowered. This is common in Jamaica and
several other parts of the West Indies, where the wood is
cut and sent into England under the name of ebony, the
name the true ebony is a native of the cataruus country, and of
a different genus. This wood is of a fine greenish brown
colour, and admits of polishing well, so that it is much valued
by the instrument makers; and it is of a very hard durable
nature. Dr. Browne says, that the trunk seldom exceeds
three or four inches in diameter; that the slender branches
being very tough and flexible are used for riding switches,
and kept at all the wharfs about Kingston to scourge the
refractory slaves.

This species may be propagated by seeds procured from its
native country. The seeds should be sown in pots filled with
light fresh earth early in the spring, and plunged into a hot
bed of tanners’ bark, or placed in an under pots. In about six
weeks the plants will appear, and being very tender should be carefully
treated; air should be admitted to them in warm weather,
and they should be often refreshed with water. In five or six
weeks more they should be transplanted into separate pots
filled with light rich earth, and plunged again into the hot-
bed, shading them from the sun till they have taken root;
they should then have air every day in warm weather, and
water once in two or three days, and in cold nights covered
with glass. In this hot-bed they may remain till autumn,
when
when they should be removed into the sloe, and plunged into the bank bed. Those whose roots have filled the pot should be removed into those of a larger size. In winter the plants should be kept warm, and have but little water, especially in cold weather; and then leaves, when they contracts with, should be cleared by washing them with a sponge, otherwise the plants will not thrive. Their tall plants will not live in the open air in the country, even in the summer. But; they might therefore be cultivated in the flower or flower bed, and allowed much air in summer when the weather is warm, and when they have acquired strength, they may be exposed for three months in a warm situation in the summer.

AMERSFORT, a city of the Netherlands, in the province of Utrecht, situated in a fertile and pleasant country on the river Ems. The objects most worthy of notice in this town are the town-house, the triangular grand palace, the public walks planted with trees, and the great church dedicated to St. George. In its vicinity is the mountain called Amersfort berg, on which trees are planted in a kind of vista, which reaches to Utrecht. The Ems becomes navigable at this town; and all the goods formerly brought out of Germany by Hoefn wagons, and confided to Amsterdam, were shipped at this port. A manufacture of dimity and bombazine has been established in this place. Its trade in beer, rum, and tobacco is now decayed. It is 11 leagues east-north-east from Amsterdam, and 52 1/2 north-east from Utrecht. N. lat. 52° 12'. E. long. 5° 4'.

AMERSHAM. See AGBRODESHAM.

AMERTHUA, or AMERTHA, in Ancient Geography, a village of Upper Galilee, mentioned by Josephus, who fortified it against the Romans, probably the same as Meroth, which terminates Upper Galilee westward.

AMES, Joseph, in Biography, an industrious antiquarian, was originally a ship-chandler in Wapping, and acquired a reputation at an advanced period of life by his study of antiquities. His "Typographical Antiquities," or Historical Account of Printing in England, with Memoirs of our ancient Printers, and a Register of the Books printed by them from 1471 to 1600, with an Appendix concerning Printing in Scotland and Ireland to the year 1749, 4to, is a book well known and often cited. This work was considerably augmented, both in the memoirs and number of books, by Mr. William Herbert, and printed in three volumes, 4to, in 1785, Mr. Ames also published in 8vo, "A List of English Heads engraved and mezzotinto;" and he drew up the "Parentalia" from Mr. Wren's papers. He was secretary to the society of antiquarians, and died in 1759. Nichols's Anecdotes of Bowyer.

AMES, William, an English divine, and a famous controversial writer, was descended from an ancient family in Norfolk, and was born in 1576. He was educated at Christ's college, Cambridge, under Mr. William Perkins, from whom he probably imbibed the Calvinistical and puritanical sentiments that distinguished his writings. Whilst he was fellow of his college he preached a sermon about 1610-11, in which he inveighed with great vehemence against cards and dice, as the invention of the devil. By this mode of preaching he gave such offence, that he withdrew from the university in order to avoid censure. In the same year he published his "Puritanus Anglicanus," in which he contradicts the principles and conduct of the puritans against those of other persons with a spirit and language equally illiberal and offensive. No other alternative remained, according to his statement, but either to suppress episcopacy, or to bring back the pope from hell. Mr. Ames, long after leaving Cambridge, removed to Holland, and officiated as minister to the English church at the Hague. In 1615, he began his controversy with Grevinchovius, minister at Rotterdam, on the doctrines of election and reprobation, and it was continued from the press. The reputation he thus acquired induced the flates of Friesland to invite him to the theological chair in the university of Franeker; and he continued in this respectable situation for twelve years. In 1618, he attended the synod of Dort, and from time to time communicated information to the ambassador of king James of the debates of this assembly. From Franeker he removed to Rotterdam, where he preached to a congregation of his own countrymen; and where, after being for some time afflicted with an ailment, he died in 1633. In the last year of his life he wrote his "Frucht Sünd gegenlarz Ceremonien," but it was not published till after his death.

He was esteemed a learned divine, an excellent casuist, a rigid Calvinist in doctrine, and a zealous advocate for the reformed form of church discipline. His writings were numerous, both in Latin and English; most of them were printed abroad; and the principal of them, besides those already mentioned, are the following: "Defunction Socillica," of N. Grevinchovius and G. Ameling, 8vo; "Difputatio Altera," 8vo. "Conciles ad Cunctationem Hancigenum," 12mo. written against the Arminians; "Defuncta Theologica," 12mo. "De Incarnatione Verbi," 12mo. against the Socinians; "Bellarminus censuratus," 8vo. against the Papists; "De Conftentia," 12mo. and in English under the title of "A Treatise on Conference," 4to; "Antientiologia," 12mo. against the Remonstrants; "Demonstratio Logica," 12mo.; "Difputatio Theologica," against Maffy; "Technometria," 8vo. on the purpose and bound of Arts; "Reply to Bishop Morton on Ceremonies," and other tracts in the same controversy; "Christiane Catacheces Sacrophilia," and "Lectiones in Pflamnos Davidos," 8vo. a pithy and learned work, dedicated to the magnificence of Rotterdam by Hugh Peter, the colleague of Ames in the English church of Amsterdam. Neal's Hist. Purit. vol. i. p. 579. Bosc. Brit.

AMESTRA, in Ancient Geography, a river of Africa in Numidia.

AMESTRATUS, a city of Sicily, called Mantissa by Ptolemy, Ministrat by Diodorus Siculus, and Amastira by Silius Italicus; now Milletta, in the Val di Demona, on the river Hales. The inhabitants are called Ciceria (in Verrum) Amestrati. It was a strong fort of the Carthaginians, besieged by the Romans for seven months with great loss, and, after another siege, taken and razed.

AMESTRIS, in Entomology, a species of Papilio, with angular indented wings, above black, with rufous and blue mottled marks; beneath obscure. Tab. & Gmel. —Indus Asia. The interior wings are black, with two rufous spots, and two blue spots in the middle of each; behind those a streak of reddish lunules, which terminates in two white spots at the anterior margin, and along the external margin a streak of blue mottled marks. Underside entirely brown, waved with black flecks, and a row of cincinnous points. Fabricius.

AMETHYST, in Mineralogy. This stone was well known to the Greeks and Romans, from whom it obtained the
the name amethyst, from a and μεθύς, non winifus, because, according to Pliny, its colour was similar to, but not so deep as that of wine; hence, by the abrid doctrine of sympathies, it came to be esteemed as an antidote against drunkenness.

There are two kinds of amethysts, the oriental and common.

The oriental amethyst is of a reddish or yellowish violet colour; and in hardnecfs, in the form of its crystals, and in shorf in every physical and chemical property, except that of colour, is the same as the ruby, the sapphire, and oriental topaz, being a mere variety of Corundum. It is a rare gem, and is very seldom brought to Europe. By being heated it loses its colour, and becomes perfectly transparent, and of great brilliancy, so as to be scarcely distinguished from the diamond; so nearly indeed does it resemble this precious stone, as to be occasionally substituted for it in jewellers work. De Boot, in his Historia Gemmarum, mentions an amethyst, thus rendered colourless, estimated at 360 rix-dollars, which being cut to the same pattern, and set in a familiar manner as a diamond of the value of 20,000 gold crowns, so nearly equalled it in lustre that he could not tell the difference between them.

The common amethyst is crysallized Quartz, or rock crystal, tinged naturally of a full violet colour; its properties and characters will therefore be mentioned under the article Quartz. The common amethyst, like the oriental, loses its colour in the fire, but at the same time spoiled by being rendered of an opaque white, owing to a multitude of minute cracks. The best European amethysts come from the vicinity of Carthagena in Spain.

To imitate the amethyst in pale or glass, take ten pounds of clear glafs or palle, made without manganese, and fuse it down with one ounce and a half of black manganese, and one dram of zaffer. The process recommended by Porta is one dram of Manganic to one pound of frit. Nerli's receipt is totally erroneous as to the proportion of colouring matter. He recommends to each pound of glass an ounce of colour composed of eleven parts manganese and one part zaffer, which would produce a deep black glafs. Weidenhau Handbuch der Mineralogie. De Boot. Hist. Gemmarum, lib. ii. c. 32. Pini. Hist. Nat. lib. xxxvii. c. 40. Nerli. Art de la Verrire. c. 48. Handmaid to the Arts, vol. ii. p. 368.

AMETHYST, in Heraldry, signifies the purple colour in the coat of a nobleman, which, in gentlemen's escutcheons below that degree, is called purpure, and in those of sovereign princes, Mercury.

AMETHYST, or amethyst, so called from the amethystine colours of the flowers, in Botany, a genus of the diandra monogynia calas, of the natural order of vericatia and labiate of Julicifus; the characters are, that the calyx is a perianthium one-leafed, tube bell-shaped, angular, semiquinquefolia, subequal, acuminate and permanent; the corolla is one-petalled, ringlet, longer than the calyx, border five-parted and subequal; upper lip erect, rounded, concave, two-parted, gaping, lower three-parted, the fides rounded, erect, shorter, the middle quite entire, concave, the length of the upper lip; the lamina have filiform form, divided under the upper lip and longer than it, anthersimple and roundish; the stigirum is a quadrifid grum, style base of the flaments, ligulas two and acute; no pericarpium, but the calyx becomes more bell-shaped and spreading; the seeds are four, fewer than the calyx, obtuse, and angular within. There is one species, viz. A. carlina, mountain upright A, which is a native of the mountains in Siberia, from whence the seeds were sent to the Imperial garden at Petersburg, and in 1759 to Chelsea garden, where the plants ramiylly produce seeds.

It is annual, and hath an upright flaxk, which rises about a foot high, and towards the top pots out two or three small lateral branches; these are garnished with small trifid leaves, faved on their edges, and of a very dark green colour; at the extremity of the branches the flowers are produced in small umbels; these are of a fine blue colour, as are also the upper part of the branches, and the leaves immediately under the umbel; so that though the flowers are small, yet from their colour with that of the upper part of their flaks, the plants make a pretty appearance during their continuance in flower.

If the seeds of this plant are sown in Autumn, or are permitted to scatter, the plants will come up early in the following Spring, and these will flower in the beginning of June; but those sown in the Spring will not flower until July. The best time for sowing is Autumn. The flowers have an agreeable smell.

When the plants come up they will require no other care than to keep them clean from weeds, and where they are too close to thin them, for they do not thrive when transplanted; the seeds, therefore, should be sown where they are to remain.

AMETHYSTINE is applied, in Antiquity, to a kind of purple garment dyed of the hue of amethyst.

In this fane amethystine differed from Tyrian, as well as from Carthusian purple, being a kind of medium between both.

AMETHYSTINA, in Entomology, a species of Chrysopoeia. Above blue violet, beneath green and violet. Shells with scattered hollow dots.—Thorax large, antennae short and black. Fabricius.

AMETHYSTINUS, in Conchology, a species of Venus, described by Argenville; it is of an ovate shape, and violet colour, with perpendicular lines; about two inches in length, and nearly the fame in breadth.—Native place unknown. Gmelin.

AMETHYSTINUS, in Entomology, is likewise the specific name of an insect of the Apis genus; it is nearly naked, black, wings violet. A native of the East Indies. Fabricius.

AMETHYSTINUS, a species of Carabus, that inhabits Cayenne; the wing-cafes and abdomen are blue; the head and thorax shining, bronze.—The antennae are hairy, serrulated at the base; wing-cafes streaked. Fabricius.

AMETHYSTINUS, in Ornithology, a species of Trochilus, or humming bird, found in Cayenne; its colours are chiefly green gold variegated beneath with grey and brown; throat amethystine blue; tail forked. Gmelin. Size of the red-throated humming-bird, T. Colubris. Linna.—Trochilus amethystinus is le petit oiseau-ronche à queue fourche & l'améthylle, of Buffon, and amethystine humming-bird of Latham.

AMETZ, in Geography, a town of France, in the department of Meffel, and chief place of a canton in the district of Longwy, three leagues west-north-west of Thionville, and three south east of Longwy.

AMEVILLE, a town of Savoy, in the valley of Aosta, near the Doria, two miles west of Aosta.

AMEWYLL, a populous town of America, in Hunterstown county, New Jersey; containing 5201 inhabitants, of whom 283 are slaves.

ANGAILA, or Angailah, in the Materia Medica of the Ancient, a name given by Avicenna and others to a plant sometimes called acantha Aralicia, and Amicantha by the Greeks; the roots of which were called bunon, and much used in medicine by the Arabian physicians.

The angaila, called also facalin, or sathal, is described as a prickly herb, having roots like thefe of the cyrus, formed of several joints or roots. They were used in flomachic and cardiac compositions, and were chosen by their lightness and good smell.

AMGINSKAIA, in Geography, a town and fortress of Russia, situate on the river Amba, 100 miles south-east of Yakutsk.
AMHARA, a kingdom of Abyssinia, situated between the two rivers Bafilo and Gelten, occupying almost the central part of the country; and having Beg-mder to the north, to the west the Nile and the kingdom of Gujam, to the south Walaka, and to the eastward Angot, about N. lat. 11° and E. long. 59°. The length from east to west is about 120 miles, and its breadth somewhat more than 40. It is a very mountainous country, full of nobility: the men are reckoned the handsomest as well as the bravest in Abyssinia. With the ordinary arms, the lance and the shield, they are thought to be superior to double the number of any other soldiers in the kingdom. The dignity of this province derives accession from the high mountains of Gelten, or the grally mountain, on which the king's sons were formerly imprisoned, till they were purified and murdered there in the Adelen war. Ludolf enumerates 36 provinces in this kingdom. The Amharic dialect was substituted for the ancient Ethiopic or Geez, in common use and conversation; after the restoration of the royal family from their long banishment in Shoá. This was denominated the king's or royal language, because it was introduced by the sovereigns of the country, when they were called to the government from their exile in the rocks of Amhara, and extended in the court and camp over the whole kingdom. With the function of this origin and authority it obtained an ascendency over all other dialects, and even over the ancient Ethiopic language itself. It differs from the Ethiopic both in construction and grammar; and seven new characters were added to answer the pronunciation of this new language, which is very difficult both to be written and learned. But no book was ever yet written in any other language but the Geez. Although the Amharic dialect be the court language, the Ethiopic retains its original dignity, not only in their books, but in their worship, and also in the king's letters patent, and commissions which are dispached in his council. Mr. Bruce says, there is an old law in the country, handed down by tradition only, that if any one should attempt to translate the holy Scripture into Amharic, or any other language, he should have his throat cut after the manner in which they kill kine, his family should be sent into slavery, and his house razed to the ground: and the act of this law was a great obstacle to his obtaining those translations of the Song of Solomon, which he proposed as specimens of the different languages of those distinct nations. The dialects of the neighbouring kingdoms, though they differ from one another, approach the nearest to the Amharic.

Ludolf has written a short essay towards a dictionary and grammar of the Amharic. See Ludolf's Hill. Æthiop. p. 78. and Bruce's Travels, vol. i. p. 425.

AMHERST, one of the Magdalen isles in the gulf of St. Lawrence.

Amherst, a county of Virginia in North America, lies between the blue ridge and the tide waters, on the north of James river, and contains 13,703 inhabitants, including 536 slaves.

Amherst, a township in Cumberland county, Nova Scotia, situate on Chignécat bason, on the south side of La Planche river, and on the rivers Napan and Macou. The town was settled by North Irish, Yorkshire, and New England people.

Amherst, the shire town of Hillborough county in New Hampshire, is a town of some note, formerly Souhegan West, and was originally granted from Massachusetts. It has 2,906 inhabitants, and was incorporated in 1762. The Aurean academy was founded here in 1790. This township was formerly much infested by wolves, but they were driven away with dismal howlings by incessant firing of guns and beating of drums for a whole day, and they have never since done any mischief in the town. Amherst lies on a northern branch of Souhegan river, which falls into Merrimack river, and is 600 miles west of Portland, and 53 north-west of Boston. N. lat. 42° 54'. W. long. 71° 37'.

AMHURST, Nicholas, in Biographia, an English poet and political writer of the eighteenth century, was born at Marden in Kent, received his grammatical education at Merchant Taylors' School, and removed to St. John's college, Oxford, whence he was expelled for misconduct. He attributes his expulsion to the liberality of his sentiments, and his attachment to the principles of the revolution and of the Hanoverian succession. Hence he took occasion to satirize the learning and discipline of the university of Oxford, and to expose the character of some of its most respectable members, in a poem, entitled "Oculus Britanniae," and published in 1724, and in his "Tertius Filius," a work blending satire and lewdness with a considerable portion of wit. It had been an ancient custom in the university, at public acts, for a person under the denomination of "tertius filius," to mount the rostrum, and divert a crowd of spectators with a merryonation in the Fescennino manner, interspersed with secret history, raillery, and sarcasm, as the circumstances of the time supplied matter; and on this custom the title of this latter work was founded. It was originally written in 1721, came out twice a week in periodical papers, and contained fifty numbers. When Mr. Amherst quitted Oxford he settled in London as a writer by profession. He first published a volume of Miscellanies on a variety of subjects, both sacred and profane. He afterwards published a poem, entitled, "The Con- vocation," in five cantos, which is a kind of satire against all the writers who had opposed Bishop Hoadly, in the famous Dangerous controversy. He also translated Mr. Addison's Resurrection, and some other of his Latin poems. But his principal literary undertaking was the political paper called "The Craftman," which was written against Sir Robert Walpole's ministry, and was carried on for a number of years with great spirit and success. In the execution of this work, and in the effect which it produced, he was assisted by Lord Bolingbroke and Mr. Pitteney, and probably by other leaders of the opposition. In 1737 there appeared in this publication an ironical letter, ridiculing the fact that had just passed for licentious plays, in conformance of which Mr. Amherst was arrested and confined, but the prosecution was dropped. He was at length totally defeated by his party, when they made their terms with the crown: and his death happened soon after, viz. in April, 1742. We shall close this article with Mr. Ralph's reflection on the subject. "Poor Amherst! after having been the leader of his party for the best part of twenty years together, was as much forgotten in the famous compromise of 1742 as if he had never been born! And when he died what is called a broken heart, which happened a few months afterwards, became indebted to the charity of a bookseller for a grave, not to be traced now, because then no otherwise to be distinguished than by the frequency of the turf, borrowed from the next common to cover it." This anecdote furnishes an instructive lesson to men of literary talents, and teaches them to form, as the basis of their prospects of reputation and happiness, a character for integrity, differentiation, and virtue. Biog. Brit.

AMÁ, in Ichthyology, a species of salmon, briefly characterized by Linnaeus, as having the lat ray of the dorsal fin longer than the tail, "pinne dorfa heiiopolioris radio ultimo longiore." Linna. — Country unknown.

AMIABLE, a species of Ameiotic, in Arithmetic, denote pairs of numbers which are mutually equal to the whole sum of each others aliquot parts. Such are the numbers 284, 220, the aliquot parts of which, with their sums, are as follows, viz.
Of 220, 1, 2, 4, 5, 10, 11, 20, 22, 44, 55, 110,—
their sum is 284.

Of 284, 1, 2, 4, 7, 14, 28, 56, and their sum is 220.

The second pair of amicable numbers are 17, 56, and 18, 16, which have the same property.

The third pair of such numbers are 93, 175, and 43, 75, 95. Schlooten, § 9, of his "Exercitationes Mathematica," found out these three pairs, and called them amicable numbers; though the properties of such numbers had been before treated of by Rudepuss, Des Cartes, and others. Schlooten, after Des Cartes, gives the following rule for investigating these numbers. Assume the number 2 of some power of 2; such that if 1 be subtracted from each of these three following quantities, 4r, 8 times the assumed number, 6 times the said number, and 18 times the square of the same number, the three remainders may all be prime numbers; then the half prime number being multiplied by double the assumed number, the product will be one of the amicable numbers sought, and the sum of the aliquot parts will be the other. Thus, let \( a = 2 \), and \( n \) be some integer number, such that \( 3^a - 1 \) and \( 6^a - 1 \) and \( 18^a - 1 \) be all 3 prime numbers; then will \( 18^a - 1 \times 3^a \) be one of the amicable numbers; and the sum of its aliquot parts is the other.

AMIANTHINITE of Kirwan, in Mineralogy. See Strehlstein.


The colour of amianthus is generally greenish or silvery white, approaching to mountain green, more rarely yellowish white, olive, or leek green, ochre yellow, or pale flesh red.

It occurs usually amorphous, but sometimes in small separate bundles. Its lustre varies from glittering to slightly shining, and is either weak-pearly or silky.

Its fracture is fine, and for the most part also flint, and even fibrous, rarely curved. It flies, when broken, into long splintered fragments.

It is found usually slightly transparent, but often opaque. It is soft enough to be scratched by the nail, and is considerably elastic. It has a soft, somewhat greasy feel.

The specific gravity of amianthus, according to Mufchenbroek, is 2.444. According to Brillin, before it has absorbed water, it varies from 0.9086 to 2.3134; after absorption it is from 1.5662 to 2.3803.

This mineral is principally met with in pot-tome and serpentine rocks, either diffused through them as a constituent part, or accumulated in their clefs and crevices unmixed with any other substance. The Tarentaise, in Savoy, furnishes the purest and most beautiful. It is also met with in Corsica, the Isle of Elba, and Crete; near Zobitz in Saxony, Salberg, and Swartwick in Sweden; in Cornwall, and the Isle of Anglesea in England, and at Portsay in Scotland.

A filament of the Tarentaise amianthus, when exposed to the flame of the blow-pipes, melts into an opaque globule, which becomes dark-coloured by the continued action of the flame. It diffuses quietly in borax and microcosmic salt, and effervesces with carbonated soda. If exposed in an earthen crucible to a high heat it melts into a dense scoria, firmly adherent to the bottom of the vessel, of a yellowish white colour, but almost white where it is in contact with the crucible, which last is in some degree penetrated and corroded. The surface of this scoria is overpread with crystalline needles crossing each other in all directions, or radiating from a common centre; similar angular crystals are diffused through the substance of the mass. These needles are a little thicker than a hair, and when viewed by a magnifier, appear perfectly transparent, of a quadrangular, prismatic figure, whose angles and faces are remarkably brilliant and well defined; whereas, the filaments of the amianthus, in its natural state, are much too fine to allow of their form being determined even by a very powerful lens. This scoria, on exposure to a greater heat, changes into a green glass, incapable of crystallizing, and which, in a short time, pales through the crucible. A specimen of greyish white amianthus afforded Mr. Kirwan, at 162 30.5 Wedgewood, a greenish black, perfectly compact glass. A specimen of amianthus from Greenland, according to Klaphroth's experiments, being included in a charcoal crucible, and exposed to the full heat of a porcelain furnace, fused into a scoria of a dirty pearl grey, covered externally with small grains of iron; its fracture showed a dull, finely porous texture, inlaid with separate, glossy particles.

The action of the mineral acids on amianthus is very feeble; the nitric and sulphuric take up no more than three or four per cent.; the nitro-muriatic, in the proportion of ten parts to one of the fonn, dissolves about 12 per cent. satisfactorily of lime, magnesia, and a little barytes.

Carbonated potash, even afluxed by ignition, is equally indifferent with the acids in decomposing this substance. The Tarentaise amianthus, mixed with four parts of pure salt of tartar, and ignited for two hours, only afforded 12 per cent. of matter soluble in sulphuric acid.

The real solvent of this refractory mineral is caustic potash, as appears from Bergman, who, by mixing equal parts of amianthus, carbonated potash, and charcoal, and igniting them for two hours, obtained a mass perfectly soluble in nitro-muriatic acid. This eminent chemic was not, indeed, aware that the addition of charcoal rendered his alkaline caustic, the reason of his using charcoal being to decompose the fulminate of barytes, to which he attributes the extraordinary refracto-

The Tarentaise amianthus, according to Bergman, is composed of

<table>
<thead>
<tr>
<th></th>
<th>Sulphated Barytes</th>
<th>Carbonated Lime</th>
<th>Carbonated Magnesia</th>
<th>Alumine</th>
<th>Silce</th>
<th>Oxyd of iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>6</td>
<td>6.0</td>
<td>18.0</td>
<td>5.3</td>
<td>64.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

That of Swartwick contains—

<table>
<thead>
<tr>
<th></th>
<th>Carbonated Lime</th>
<th>Carbonated Magnesia</th>
<th>Alumine</th>
<th>Silce</th>
<th>Oxyd of iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>13.9</td>
<td>17.2</td>
<td>2.7</td>
<td>64.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

That of Corias in Austria yields—

<table>
<thead>
<tr>
<th></th>
<th>Carbonated Lime</th>
<th>Carbonated Magnesia</th>
<th>Alumine</th>
<th>Silce</th>
<th>Oxyd of iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>10.5</td>
<td>12.9</td>
<td>3.3</td>
<td>72.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is rather singular that sulphated barytes should have been found in the Tarentaise amianthus, as this earthy salt does not once occur among the analyses of the Swedish or Austrian
Anbrian specimens, or among those of albites, flectite, and other minerals that have the nearest analogy to the amiantus; it is therefore greatly to be wished that some able enquirer, in possession of the modern improved means of analysis, would undertake the examination of this mineral.

Amiantus is often confounded with the more flexible kinds of Asbestos, to which it bears a near resemblance in external characters and chemical composition. Its fibres are, however, for the most part, more distinct and flexible than those of albites; it is more fusible per se, and is considerably less acted upon by acids.

The fibrous texture of amiantus, its incombustibility, and the little alteration that it undergoes even in a strong heat, were early noticed, especially among the eastern nations; and methods were found out of drawing the fibres into thread, and afterwards weaving it into cloth; this, when dried with grace or other inflammable matter, was burned by throwing it into a bright fire; the flames were burnt out, and the cloth was then removed, but little altered in its properties, and of a dazzling white; hence it obtained from the Greeks the name of Amphion, (undeciled.) In the rich and luxurious times of the Roman empire, this incombustible cloth was purchased at an enormous price, for the purpose of wrapping up the bodies of the dead previously to their being laid on the funeral pile, that the ashes of the corpse might not be scattered and mixed with those of the wood. This practice was indeed probably confined to a few of the richest families, but of its reality there can be no doubt, especially since a funeral urn was discovered in 1792 at Rome, near the Porta Neva, in which there was a ferris and other calcined bones, together with a quantity of ashes inclosed in a cloth of amiantus nine Roman Pains long, and about seven palms wide. This interesting relic of antiquity was deposited, by order of pope Clement XI. in the Vatican library.

The difficulty of burning the dead occasioned the manufacture of amiantus cloth to be neglected, and at length entirely forgotten in Europe; but though it has ceased to be an article of necessity or luxury, yet the method of its preparation has occasionally attracted the notice of travellers, and occupied the time of the curious. Marco Polo affirms, that in the east the mineral is generally bruised in a mortar to separate the fibres, and, being washed till the water comes off clear, is dried and then manufactured as flax or wool. Cambia, of Rome, in 1601, and then Mahudel, after many trials, published the following as the best way of preparing the incombustible cloth. Having previously steeped the amiantus in warm water, divide its fibres by gently rubbing them with the fingers, as to loosen and separate all the extraneous matters, then pour on repeatedly very hot water, as long as it continues to be in the leaf discoloured. Nothing will now be left but the long fibres, which are to be carefully dried in the sun. The bundles of threads are to be carded by very fine cards, and the long filaments thus obtained are to be steeped in oil to render them more flexible. A small quantity of cotton or wool is to be mixed, and by means of a thin pin the whole is to be drawn into thread, taking care that the amiantus may in every part be the principal material. The cloth being then woven in the usual manner, is to be placed in a clear charcoal fire to burn off the cotton and oil, when the whole remaining tissus will be pure white amiantus. The shorter fibres that are incapable of being woven have been sometimes made into paper; the Proceeds of which is the same as that employed for common paper, except that a greater proportion of pate or size is required: after having been once made red hot, however, the paper becomes bibulous and brittle. For written documents of great importance, it might be worth while to be at extraordinary expense for incombiustible paper and indelible ink; the former of these may be prepared from the longer fibres of amiantus, so as to be much less brittle than when the shorter ones are alone made use of; and for the ink the following receipt will be perfectly efficacious. Take one part of sulphur of iron (green vitriol) and two parts of alum, dissolve them together in warm water, and then add peradist as long as any precipitate takes place; boil the mixture, and filter it on a filter, allow the precipitate to drain after being washed with warm water, and, while yet soft, dissolve it in distilled vinegar; use this moderately concentrated for ink, and the characters, after combustion, will be of a yellowish brown colour, and sufficiently legible.


AMATUS, in Enomology, a Species of Hysteria. Wings entire, black, posterior margin yellow; head and tail red. Inhabits America. The antennae hooked, black: wings uniformly black, except the yellow margin, body black, head and tail red. Fabricius.

AMAZON, in Geography, lies on the coast of Brazil, in which the city of Santos is situated, and hence it is called the gulf or bay of Santos. St. Vincent's is in another part of the same island, and before there was good anchoring.

AMICABLE, benevolent, amicabilis, in Antiquity, are generally supposed to denote the feasts in the Roman courts, wherein the advocates were placed. Some think that these have but little title to the denomination of amicable, and therefore will have the word to be here used for the benches whereon the advocate, or those called justes paegettis, were placed.

AMICABLE compounder, amicabilis compositor, is used by some ancient law-writers for an arbitrator.

AMICABLE, or amicabile compander, among the French, is a person who acts the part of a common friend, to reconcile two merchants or traders who have disputes, or are at law together. He differs from the arbiter, in that, in order to make the two disputants agree, he often prevails upon both to give up some part of their right or claim, which an arbiter, who performs the functions of a judge, is not, it seems, at liberty to do.

AMICABLE Numbers. See AMIAL.

AMICABLE society. See Assurance.

AMICELA. See Alumium.

AMICITIA—Tunor in Amicitia, is applied in Aric Writers to land granted freely, and of mere good will, to be enjoyed at the discretion of the donor.

AMICILE, or Ad Laxtulas, now Portella, in Ancient Geography, a town of Italy between Terracina and Forcett.

AMICONI, Jacques, in Biography, a painter of history and grotesque, is supposed to have been born in the territory belonging to the republic of Venice, to have studied the art of painting for some years at Venice, and to have completed himself in his profession at Rome. The liveliness of his imagination,
imagining, the red Hen of his invention, and the freedom of
his hand, soon recommended him to the public esteem,
and he found encouragement and employment in most of the
courts of Europe. He is said to have polished many of the
accomplishments of a good painter; but though his merit in
many respects must be allowed, and his drawing is generally
correct, yet his colouring is much too cold, too pale, and,
as it is termed by the artists, too mealy. His compositions
are well known in this kingdom, and many of his pictures
are admitted into the collections of the first nobility; but
nevertheless few particulars of his life have been ascertained.

Pilkinson.

AMICTUS, in our Ancient Writers, the uppermost of
the fix garments, worn by priests; the others are alba, cing-
gulum, palla, amphinem, and planum. It was tied round
the neck, Ne inde ad lingam transita manducit; and covered
the breast and heart, Ne manuosa coeptis.

This garment is otherwise called ambulatio; sometimes
ambulatio, amalgamation, and humerole. In ancient English
writers it is called amict.

The amict is also worn by deacons, sub-deacons, and accli-
batini, when they officiate at the altar.

The priests and deacons, in some dioceses, wear amicts
on their heads from All-saints to Easter; though, by the
canons, they be expressly forbid to wear the amict without
some considerable occasion.

Mr. Thiers affirms, that the use of amicts was intro-
duced into the Latin church before the twelfth century.
Dom. de Vert maintains the contrary, chiefly from a figure
of St. Firmin, first bishop of Amiens, supposed to have
suffered martyrdom towards the beginning of the seventh
century, wherein he is represented in his pontifical habit,
with the amict on his head.

AMICTUS, in Roman Antiquity, denotes any upper gar-
mant worn over the tunica.

AMICUS, in Geography, a lake in the province of Cu-
mana, South America, whose waters run south-erly through
Parima river, into the Amazon.

AMICULATUS, in Conchology, a species of Chiton,
that inhabits the Kurile islands. Shells of eight valves, kid-
ney shaped, and very brittle. External covering a fea-
brown coriaceous membrane.—Length fix inches. Gmelin.

AMICULUM, in Antiquity, denoted an upper garment
worn by the women. The amiculum is said to have differed
from the palla; but wherein the specific difference lay does
not appear. An amiculum was also in use among the men.
This seems to have been the same with the ab寒us, or pa-
ulamentum.

AMICUS, or AMICONESOS, in Ancient Geography, an
island of the Red Sea, according to Ptolemy. Amicus was
the epiphon of Hercules among the ancients, and hence it
is said was derived the name of this island. This is prob-
ably the same with the Amicena of Steph. Byz.

AMICUS CURIS, in Laws. If a judge is doubtful, or
mislaken in matter of law, a lie-the-about may inform the
court, as amicus curiae. 2 Co. Inst. 178. Any one as amicus
curiae may move to quash a vicious indictment; for if there
were a trial and verdict, judgment must be arrested. Com-
berb. 13.

AMID AMID, in Geography, a ridge of mountains in
Abyssinia, lying behind the two ridges of Litchambara and
Afromada, commence behind Semien, in the south-west
part of the province of Maitha, and become high only from
the mountain of Adam; resembling in their shape the
former ridges, and embracing them in a large curve, like a
crescent. Between Amid Amid and the ridge of Litcham-
bara is the deep valley known by the name of St. George,
Romans, on condition of their paying to the king of Persia 50 talents. Upon the decline of the Roman empire, it reverted to the Persians; from them it was transferred to the Sraezens; and it is now possessed by the Turks. Amida assumes in modern times the provincial appellation of Diarbekr, and is also called by the Turks Kara-amdeh; the epithet kara being derived from the blackness of the rock which comprises the town and ancient wall of Amida.

AMIDA, in Mythology, a god worshipped by the Japanese, who has many temples erected to him in the island of Japan, of which the principal is at Jeddo. They suppose that he flourished many thousand years ago, and that after a life of voluntary mortification and austerity, and of signal miracles and exemplary virtue, extended to 4000 or 2000 years, he passed by a voluntary death to another estate, where he was advanced to the dignity of a god. The Japanese have such a confidence in their idol Amida, that they hope to attain eternal felicity by the frequent invocation of his name. One of the figures of this idol is represented at Rome.

Cano, the son of Amida, is likewise held in great veneration, and has a flatly temple near the city of Meaco, in which are 1000 images or statues of him, beautifully carved and regularly arranged.

AMID-SHIPS, a nautical term, denoting the middle of a ship, either with regard to her length or breadth.

AMIENS, in Geography, a city of France, and capital of the department of the Somme; before the revolution it was the capital of Picardy, and the seat of a bishop, the suffragan of the archbishop of Rheims. It is situated in a plain, on the river Somme, which passes through it in three distinct channels, that afterwards unite; and may be seen at a great distance, decorated with a number of lofty towers, among which the cathedral commands peculiar notice. This is an elegant Gothic edifice, beautifully proportioned and delicately wrought; and the nave is particularly admired. It has many other collegiate, parochial, and public buildings, and an academy of arts and sciences founded in 1750. It is defended by a citadel and ramparts, on which are planted trees, which form a pleasant walk. The river Somme is navigable to the town. The houses are well built in the old taste; and the number of inhabitants has been reckoned between 40 and 50,000. Tinfau (Statistical view of France,) estimates them at 40,289. Its 4 cantons contain 45,157; its whole territory includes 100 kilometres and 12 communes. The commerce of Amiens has been very considerable, particularly in woollen stuffs, camlets, and hags. It has also been famous for its soap-manufacture.

Amiens, in Latin Ambiani and Samarobriva, is a place of great antiquity. It appears from Caesar's account in his Commentaries to have been one of the principal cities of Gaul; he held a general assembly of the Gauls in it, and committed it to the guard of a legion. Cicero refers to it in several parts of his epistles as a place of note; and Ambianus Marcellinus (lib. xv. c. 27.) mentions it as "a city eminent among others." It was enlarged by the emperors Antoninus and Marcus Aurelius; and it was the place in which Contantine, Constant, Julian, and other emperors frequently resided. The cardinal of Amiens, comprehend- ing a great part of the territory of the Ambiani, and since called Picardy, was formerly conferred by the kings on the bishops of this city. Philip Augustus, in 1193, annexed it to the crown. The states of France were summoned at Amiens by Lewis XI. in 1264, on the appeal made to him by Henry III. and the barons of England; and the appeal was decided in favour of Henry. Charles VII. granted it to Philip the Good, duke of Burgundy, in 1435; and Lewis XI. reunited it to the crown in 1477. Amiens was taken by the Spaniards in 1507, by the following stratagem. Soldiers, disguised like peasants, conducted a cart, loaded with nuts, and let a bag of them fall just as the gates were opened. Whilst the men in garrison were busily employed in gathering up the nuts, the Spaniards entered in a body, and made themselves masters of the city. Henry IV. however, retook it in the same year. Amiens is distinguished as the native place of Voiture, Roland, Du Caugy, and Guicci. It has lately, viz. in 1802, acquired celebrity by the negociation, which terminated the war between England and France, and other belligerent powers, and by the signature of the definitive treaty, by the plenipotentiaries of the four contracting parties, Spain, Holland, France, and Great Britain, on the 27th of March, which established peace. Amiens is situated in N. lat. 49° 53' 20", and E. long. 2° 17' 56".

AMISTDES, in Commerce, cotton cloths which come from the East-Indies.

AMIGONI, Octavio, in Biography, a painter of history and portrait, was born at Brescia, in 1655, and was a disciple of Antonio Gandino. His expression, and taste of design, were very remarkable and very elegant; and his compositions, executed with a free, firm, and masterly touch, and with figures as large as life, were much applauded in several parts of Italy. Pilkington.

AMILICHUS, in Ancient Geography, a river of Greece, in Achaia, situating to the north-west.

AMILICITI, in the Chaldaic Theology, denote a kind of intellectual powers, or persons in the divine hierarchy. The amilici are represented as three in number, and constitute one of the triads, in the third order of the hierarchy.

AMIL, in Ancient Geography, a river of Mauritania, mentioned by Pline.

AMILOS, or Amilus, a town of Arcadia, to the north-west of Orchomone.

AMILPAS, in Geography, two volcanoes in the province of Guatimala, in New Spain, near the mountains of Soconusco.

AMINE, in Ancient Geography, a people of the Falklay, who, according to Arilitote, transported their vines into Italy, whence the expression amina vitis.

amina, in Geography, a small town of Africa, in Bar- bary, situating on the eastern side of the kingdom of Tripoli.

AMINUS, in Ancient Geography, a river in the southern part of Arcadia, which runs from north-east to south-east into the Helifius.

AMINARTE, a great officer in Spain, answering to the lord high-admiral in England.

AMINARTE, or Cassibaco Bay, in Geography, a large bay on the north coast of the illusius of Darien, and near the limits of North and South America. It is in the province of Veragua, on the north-west of the Toro channel and bay of Concepcion, from which it is separated only by a congeries of rocks, which lie in the ocean, near the coast. N. lat. 6° 5'. W. long. 82° 30'.

AMINARTE ISLANDS. See Almirante.

AMISENUS SINUS, gulf of Amisenus, in Ancient Geography, a gulf or bay of the Euxine sea, situating to the east of the mouth of the Halys, on the coast of the kingdom of Pontus; so called from the town of Amisus.

AMISA. See Ems.

AMISS Drawing. See Drawing.

AMISSA Lex. See Lex.

AMISSEN or MISSEREN, in Geography, a point on the gold coast of Africa, east of Carintane, between it and Dajou or Tagu, near the rough point. N. lat. 5° E. long. 1° 15'.

AMISTOWES, a town of Bohemia, in the circle of Konigingratz, 10 miles west-south-west of Bicezow.

AMISUS,
AMISUS, in Ancient Geography, a considerable city of Asia Minor, in the kingdom of Pontus, was situated on the coast of the Euxine sea, near the mouth of the Halys and Iris, founded by the Milesians, and peopled also by a colony of Athenians. It was at first a free city, like the other Greek cities in Asia, but afterwards subdued by Pharnaces, king of Pontus, and made the metropolis of his kingdom. Pliny says, that it maintained its republican and popular form, till it was conquered by the Persians; but Alexander restored its liberty, of which it was deprived by the king of Pontus. It was in extent the largest city of the kingdom, except Sibyris. Mithridates had a palace in this city, and it was adorned with temples and many magnificent buildings, when Lucullus took it. Its inhabitants were massacred by Pharnaces, the son of Mithridates; but it was re-taken by Caesar, and made a free city.

AMITERNUM, a town of Italy, north-east of Rome, in the country of the Sabines, situate, according to Strabo, on the declivity of a mountain, and having, in its time, the remains of a theatre and a temple. It was taken by Sp. Carvilius, in the year of Rome 460, and subdued to the time of the conquest between the Guelphs and Ghibellines, when it sunk under the town of Aquila, newly erected by the emperor. It was famous as the native place of the historian Sallust. Some remains of it are still discernible near S. Vittorino and the springs of the Arenus.

AMITHOSCUTA, a country of Arabia Felix, according to Pliny.

AMITENES, a people of Etruria, according to Pliny.

AMITTERE legem terrae, a law-phrase, signifying the forfeiture of the right of swearing in any court or cause; or the becoming infamous.

This is the punishment of a champion overcome, or yielding in the combat: of jurors found guilty in a writ of attainder, and of perjuries outlawed. Vide Glanv. lib. ii. and see the flat. 5 Eliz. cap. 9. against perjury.

AMIXOCORES, in Geography, a people of America, in Brazil, near the country of Rio-Janeiro.

AM-KAH, in History, a name given to a spacious palace in the palace of the great Mogul, where he gives audience to his subjechts; and where he appears on solemn festivals with extraordinary magnificence. His throne is supported by six large steps of mellow gold. It is vast with rubies, emeralds, and diamonds; and is estiuated to 660,000l.:

AM-LAK, in Geography, one of the Fox islands, at the distance of about 15 miles from ATCHAK, and nearly of the same size. It has a harbour on its south side. It lies in about N. lat. 52° 30'. W. long. 173° 30'.

AMALGODE, or AMALGODE, a river on the south-west coast of the island of Ceylon, between Barberin island on the north-west, and Regama point on the south-east, about eleven leagues distant. It is not navigable; it is known by a garden of cocoa trees.

AMLET. See OMELET.

AMLING, CARL GUSTAV AB, in Biography, a painter and engraver, was born at Nuremberg, in 1651, and learned the art of engraving from Francis de Poilly, whose style he imitated but never equaled. He chiefly excelled in portraits, and failed in historical subjécts. He was engraver to the duke of Bavaria, and died in 1702. Among his portraits are “ Maximilian Emanuel,” elector of Bavaria, a large upright plate, esteemed as one of his best; and among his historical subjécts are “the history of the emperor Otho,” from the tapestries at Munich, in 13 plates, and “the Four Seasons,” from the same tapestries. Strutt.

AMLWCH, in Geography, a small village in the island of Anglesea, adjoining to the mines of the Paris mountain, and raised into eminence by the works and wealth which they occasion. The two great proprietors of these mines, Lord Uxbridge and Mr. Hughes, have adorned this village with two elegant houses for their occasional residence, one called the Moon, and the other the Paris Lodge. The little port of Amlwch is placed in a small cove, among the cliffs, about half a mile below the village, and is admirably formed for receiving and arranging the several vessels which are employed in the copper and brass trade. It often also affords a safe haven to those ships, which, in their passage from Ireland, are driven to the north-east, round the point of Holyhead, and cannot make that harbour.

AMMA, in Ancient Geography, Lemna, a river of Switzerland, which runs into the Aar, near Soleure.

AMMA, a town of Asia, in the tribe of Ater; called, by Jerom, Amma.

AMMA, in Middle Age Writers, denotes a spiritual mother. In this sense, the word was chiefly understood of an abbe, or superior of a monastery.

AMMA, or HAMMA, from oura, urinatum, in Surgery, a technical term, denoting the bandage employed to牢固 Ruptures of Hernia. This important instrument will be more properly described under the article Hernia, which it

AMMAEA, in Ancient Geography, a town of Melopota-ecia, near the Euphrates, towards the Persian gulf, according to Ptolemy.

AMMADARA, a town of Africa Propria, in that part called by Ptolemy Numidia Nova.

AMMAENSIA JUGA, a name given by Pliny to the mountains of Lusitania.

AMMATTIA, a town of Asia, in Asyria.

AMMAN, or AMMA, a town of Asia, in Arabia; it was the principal town of the Ammonites, and called also Rabbath.

AMMAN, in the German and Belgie Policy, denotes a judge who has the cognizance of civil causes.

The word is also written amant. Thus it occurs in writers on the French officers, where it stands for a notary, or parochial officer, who draws acts or instruments.

AMMAN, JOHN CONRAD, in Biography, was born at Schaff- hausen, in Switzerland, graduated at Basel in 1681, and practised physic at Amsterdam, towards the close of the 17th and beginning of the 18th centuries. He applied himself with particular attention to the discovery of a method of teaching persons born deaf and dumb to speak; and from observing the motions of the lips and mouths of persons addressing them, to understand their meaning. In this art he attained great perfection, and many persons born with those defects, were restored to society, through his skill and perseverance. In the year 1692, he published an account of the proceeds by which he was effected, in Dutch, under the title of “Surdes Loquens;” and in 1702, in Latin, adding to the title, “De Differtatio de Loquela;” Opus, Haller says, vere aureum; no material addition having been made to his directions, which are now every where practised, by persons professing that art. The work has always been held in high estimation, has been translated into most of the European languages, and passed through numerous editions. Haller Bibl. Med. Prat. et Chirurg.

AMMAN, JOHN, son of Conrad, also doctor in medicine, settled in Peterburgh, where he gave lectures in botany. He published “Icones et descriptiones florium rariorum Rheniacarum,” Petropolii, 1739, 4to.
The figures were principally taken from a collection of dried specimens of plants, preferred at the Imperial academy, Petersburg. Eloy Dictionaire Hiltor. de la Med.

AMMAN, PAUL, was born at Briavay, August 1634. After finishing his school education, he travelled for improvement over various parts of Germany, Holland, and England. In October 1662, he was admitted doctor in medicine at Leipsic, and in succession, professor of medicine, botany and phytoogy in the same university, in which offices he acquired considerable reputation. He died, February 4th, 1761.

Hallier gives a long list of publications by himself, but his principal works are, "Ammanni parenese ad doocentes occupata," 1673, 12mo; "Praxis vulgarum Illethum sex decusibus Histiorum rararium, Franco," 1701, 8vo. For the titles of his other works, see Haller's Bib. Med. Prat.

AMMAN, or AMMON, JEST or ONONUS, a designer and engraver, was born at Zurich, in Switzerland, A.D. 1539, resided at Nuremberg, and died there in 1591. He was an indefatigable artist, and produced considerable merit as an engraver. The number of his designs and plates is very great. His engravings were chiefly on wood, and are much superior to those on copper. Although he does not manifest much invention, his figures are well proportioned; and his animals are touched with great spirit. His manner of engraving is said to have been neat and decided. Among his performances we may select his "Dea Fortuna," ornum liberum mechanicarim et fedentarum attim genus continens, &c." Franco, 1564, amounting to 115 prints, and exhibiting the different artists and tradesmen in their respective employments. He also engraved in wood some detached pieces, and on copper "The Illustrious Women," beginning with Eve; a set of "Figures of Warriors," 1590; "The Four Seafons and the Four Elements," 1599. Strutt.

AMMAN JOHN, an artist and book-keller, lived at Hanau, in Germany, about the year 1640. A set of small wooden cuts, representing "the Passion of our blessed Saviour," executed very much in the style of the former artist, and published at Amsterdam, with Latin versés, in 1623, is reckoned to possess a considerable share of merit. Strutt.

AMMANATI, Bartholomeo, a celebrated sculptor and architect, was born at Florence, in 1511, and studied sculpture in his native town under Bandinelli, and at Venice under Sansovino. He designed the porticoes of the Piti palace, and the bridge Della Trinita, at Florence, which is accounted one of the most beautiful works, since the revival of the arts. At Rome he built the palace Ruipoli, and the noble front of the Roman college. On his return to Florence he expended his wealth in building the church of San Giovannino, belonging to the Jefuits, in which he was interred. Ammanati's large work "La Citta," comprehends the designs of all the public buildings necessary in a capital city. He died either in 1580 or 1592. His wife, Laura Battiferi, was distinguished for her poetical productions, of which a collection was printed at Florence, in 1580. Now, Diet. Hist.

AMMANNIA, named by Houtou in honour of J. Amman, in Botany, a genus of the tetraneura monogynia clads and order, of the natural order of calyxactere and foliariz of Jullien; its characters are, that the calyx is a pteranthum bell-shaped, oblong, erect, with eight streaks and folds, quadrangular, eight-toothed, teeth alternate bent in, and permanent; corolla none, or four-petalled, petals vertically ovate, spreading, inserted into the calyx; the filament have filaments, (four or eight) brilly, the length of the calyx into which they are inserted, anthers twin; the pellium is a germ subovate, large and superior, style simple, very short, and stigma headed; the pericarpium is a munth, four-celled capsule (berry) covered with the calyx; the seeds are numerous and small. There are seven species, viz. 1. A latifolia, tharistia of Brown. Jamaica, sharparies of Southe Jamaica. 2. A. purpurascens, a broad-leaved A. "with calves half-clasping, square flare, and erect branches." This species pursue lines in the botanic gardens in Europe. 2. A. tenuis, long-clasping. The species are annual, and grow naturally in Virginia and Carolina; rable at a foot high, with red fuscous flanks, putting out side branches, opposite, round, and ample, the flowers are produced from the axils on the lower part of the branches, and toward the top in clusters, they have little beauty; cultivated in 1571, and preferred for variety. 3. A. bacaefera. A. verticillata of La Marek, cornelica verticillata of And. Spec. "with leaves sub-petiole, capsules larger than the calyx and coloured," it has four-toothed calyces. This native of China, and naturalized in Italy. It has little beauty, and is rarely preferred in gardens. 4. A. olifandra, eight-flamed A. "with sepals linear-lanceolate leaves, and flowers petal-bearing, and eight-flamed;" the petals are blood red; found in Koenig in the East Indies. 5. A. pinnatifida, pinnatifid-leaved A. "with petals procumbent, rooting, compressed, and leaves linear, pinnatifid." The flowers are small, corolla red, and capsules four-cornered; found by Sonnerat in the isle of Java. 6. A. decus, clustered-flower A. "with leaves lanceolate, attenuated at the base, leaf branching, flowers in bundles from the axils, and capsules two-celled." This species is annual, the calyx angular, petals pale-purple, filaments shorter than the calyx, anthers ovate and yellow, capsule ovate and two celled; a native of the East Indies; introduced in 1778 by Sir Joseph Banks; and flowers in July and August. 7. A. fangulina, "with leaves, half-clasping, cordate at the base, flowers sub-peduncled, eight-flamed, petal-bearing;" a native of Jamaica and Domingo.

Culture. The three first species must be raised from seeds on a hot-bed in spring, and afterwards removed to another hot-bed in order to bring them forward. When the plants have acquired strength they should be transplanted into pots filled with rich light earth, and placed under a frame, shading them till they have taken fresh root; they should then be placed in a glass case or flower, to ripen their seeds, for the plants are too tender to thrive in the open air in this country, unless the summer be very warm. The second foot, raised in a hot-bed, in the spring, and planted in a warm border, will perfect its seeds in the open air. The other species are flower-plants. Martyn's Miller.

AMMANN, in Geography, a town of Japan, in the province of Fida.

AMMATA, or AMMATHE, in Ancient Geography, a town of Atia, in Palestine, belonging to the tribe of Juda.

AMMER, in Geography, a powerful but infamous tribe of Arabs, who inhabit the province of Conimanza, in Africa, and who, contrary to the practice of their brethren, prostitute their wives and daughters. Shaw's Travels, p. 53.
AMMERCOT, a town of HIndooftan, situate in a sandy
defert, 138 miles north-east of Nifferpur, and 256 south of
Moulant. Fenulita reckons it about 100 cosses from Tatta.
In the Ayin Abaceer it is clas'd as belonging to the Nis-
ferpur division of the province of Sindy. N. lat. 25° 40'.
E. long. 70°.

AMMEREN, a town of Germany, in the circle of
Welfphalia, and duchy of Juliers, six miles eall-north-eall from
Ruremond.

AMMERSRI, a lake of Germany, in the circle of
Bavaria, 12 miles long, and from two to three broad, 85
miles west of Salzburg.

AMMESPACHT, a river of Germany, runs into the Erle-
bach, in the archduchy of Austria, on the borders of Stiria.

AMMI, formed from ami mus, in Botany, a genus of
the penantandagryne clafs and order; of the natural order of
umbellate or umbellifers; its characters are, that the calyx
has its universal umbel manifold, frequently of 50 rays,
the partial short and crowded, the universal involucres
of many linear, pinnatifid, acute leaflets, scarcely the length
of the umbel, the partial many-leaved, leaflets linear, acute,
fimple, shorter than its umbel, the proper perianthum
searclly apparent; the corolla universal uniform, with all
the flowers fertile, the prople of five index, heart-shaped
petals, of unequal fize in the ray, almost in the middle
of the disk; the stamens have capillary filaments. anthers
roundish: the gyniun has a germ inferior, styles reflex,
and stigmas obtuse: no papetiaum, fruit roundish, smooth,
small, frgeted, and bipartile: the seeds two, convex
and frgeted on one side, and flat on the other. Martyn reckons
three, and Gmelin four species. 1. A. major, common
bishop's weed, ammielatifon, "with lower leaves pinnate,
lanceolate and serrate, upper ones multiplid and linear." This
species is annual, and grows in vineyards, and fields, in the
southern parts of Europe, and in the East. There is a rel-
riety reckoned by Baubin a dilBfide species, under the
title of A. major taliiis plurimum incis, et nonulbil crisus;
but Mr. Martyn has raised this variety from the seeds of the
former. 2. A. cupicum, "with leaves papier-de-compound,
linear, and seeds nuicrurate." This is of the native of Dill,
green, stem smooth and frgeted; leaves tripinnate oblong,
smooth, and linear; umbels with ten rays; involucere five-
leaved; partial involucere seven-leaved; corollas white, equal
and five angled; fruit ovate and mucrurate on every side,
seeds frgeted with five sculptures, aromatic: found by For-
skahl in Egypt; annual, introduced in 1773 by John Earl
of Bute. 3. A. glaucofolium, dauceus petraeus glauceolus
of Baubin, perennal bishop's weed, "with the subdivisions
of all the leaves lanceolate." This has the appearance of a
variety of the frst species; is a native of the south of
France; described by Miller as a perennial plant, preferred
for variety, but having little beauty. 4. A. 1avrificum,
"with bipinnate leaves, the winged leaflets tried, the blt
connected in whisks with the common rib." La Marec has
referred to this genus, the dauceus vifjuga of Linnaeus,
and the ammi andehifolium, with oblong pinnate leaves,
the leaves multiplid and capillary, and the petioles camil-
ated; the dauce meoids of Hort. Reg. brought originally
from the Levant, and flowering in the beginning of
Autumn.

Cultwe. There is a fpecies is propagated by seeds fown in
Autumn in the place where they are to remain; in the
Spring the ground should be hoed and the plants thinned
as in the management of carrots, leaving them four or five
inches asunder, or in good ground at the distance of six
inches; after which they will require no further care, be-
ides being kept free from weeds. They will flower in
June, and the seeds will ripen in Augutt, and should be ga-
thered as they ripen, for they will soon shatter. The 3d
species will grow in any open situation, is very hearty,
and thrives bell in a mild soil. Martyn's Miller's Dict.

AMMI, or ammi annua rei, in the Materia Medica,
a kind of aromatic feed, the produce of the sion ammi of
Linneas, sometimes though lowly brought from the
Levant, and formerly used in medicine. The feed is small,
whence, according to Lemery, the name of the plant ammi,
from ammoris, small, birelled, of a greyish brown colour, somewhat
bitterish taste, and fragrant smell, approaching to that of
origanum. This seems to have been the ammi of Dioscorides
and Hippocrates. It is now very rarely prescribed. Thesefeed,
dilfled with water, yield a considerable quantity of a
yellowish effential oil, containing their whole smell and
flavour; the remaining decoction is pleasantly bitterish.
Spirit of wine carries off, in its evaporation, the odorous
principle of the ammi. These feeds have been recommended
as a Thomae, emmenagogue, diuretic, and an elegant
aromatic carminative.

AMMINUS MARCELLINUS, in Biography, a Roman
historian, a native of Antioch, where his family made some
figure, and in early life served several years in the army in quality of
protector domesticus, which was then an honourable post. In 350 he
accompanied Uricius, a general of the horde under the emperor
Constantius, into the East; and followed him in several expe-
ditions, from 350 to 379, in which he acquired military
reputation. He attended Julian in his Persian expedition in
367, and was, either at or near Antioch in 371, when the
co-;ipiracy of Theodorus was discovered in the reign of
Valens, and was a witness of the torments of many persons
whom Valens ordered to be put to death on that occasion.
It is not certain whether he obtained any higher rank in the
army than that of domestic protector. When he quitted the
army, he retired to Rome, and employed himself in writing
the history of the affairs of the empire, during a period of
three centuries. Though he was a Greek, he chose to write in
Latin: but his Latin, in the opinion of Vossius, indicates
that he was a Greek and a soldier. His history was divided
into 31 books, commenced with the reign of Nerva, where
Tacitus ends, and terminated with the reign of Valens.

The first 13 books, ending with the reign of Constauitus,
and containing a superfluous epitome of 2,577 years, are lost;
the last 18 books, now extant, begin with the 17th year
of Constauitus, A.D. 353, and conclude with the year 375;
tho5ome particulars of a later date are men-
tioned, from which we may infer, that the historian lived at
least to the year of Rome 1142, or A.D. 396. The style
of his history is reckoned harsh and verboce; but this de-
fect is amply compensated by the variety of information
which he communicates from his own personal knowledge,
and by the fidelity and impartiality of his relation. Mr.
Gibbon (Hist. vol. iv. p. 426.) represents him as "an
accurate and faithful guide, who has composed the history
of his own times, without indulging the prejudices and pas-
tions, which usually affect the mind of a contemporary."
Some have supposed that he was a Christian; but of this
there
there is no sufficient evidence. As he wrote under Christian emperors, he might not judge it proper to profess his religion unconditionally, and he might think it most prudent to be cautious in his reflections upon Christianity. Although he was a pagan, as is evident from the respect with which he speaks concerning the pagan divinities, and from his defence and recommendation of heathen auguries, and such methods of investigating futurities, he nevertheless manifests no animosity against the Christian religion; on the contrary, he bears honourable testimony to the plain and simple nature, and the equitable and gentle spirit of Christianity, to the moderation of some Christian bishops, whilst he condemns the severity with which some Christians treated one another, and to the firmness and fidelity of the Christian martyrs. Hence Molheim concluded that Marcellus and some other learned men about his time were neutrals; alleging, that they neither rejected the Christian religion, nor forsook the religion of their ancestors. But the influences already cited merely prove, that he was a faithful and candid historian. The remaining works of Ammianus Marcellus have passed through several editions; all of which have been superseded by that of Vulcius, printed in folio at Paris, in 1681. This edition was reprinted by Gronovius at Leyden, in 1693, with valuable notes. Valerii Prof. ad Amm. Marc. Fabric. Bibl. Lat. cap. xii. tom. ii. p. 98, &c. Lardner's Works, vol. viii. p. 464, &c.

AMMINIAEUS, in Botany, a name given by the old writers, to the grapes of a wild vine, common in the hedges of Italy, and some other places. They used to make wine of these grapes, which they mixed with other richer wines, and had in common use. Columella says, that this wine was first brought from the country of the Ammiens in Thessaly, and that the wine produced from its grapes was the first and most ancient known among the Romans. According to Macrobius, the Falernian wine was more anciently called Aminian. Some write the word tameina, instead of amminea.

AMMIRABEA or AMMIRASH, corruptly Marba, and Umarba, in Geography, a river of Africa, which has its spring on mount Magnar, one of the heads of the Atlas near the confines of Fez, which runs through the plains of Adachfon, where it has a beautiful bridge built by Abu'l Hascher, the fourth monarch of the Benimerins, and thence winding southwards and watering the spacious plains between Dukala and Temesfana, becomes wider in its approach to the ocean, into which it discharges itself, and forms a capacious bay, on the east side of Azamor. This river is fordable neither in Summer nor Winter, so that the inhabitants are forced to ferry their effects over it, by the help of barks, fastened to leathern pontoons, or over rafters. Its fish not only furnishes all that country; but is exported to Spain and Portugal.

AMMIRAGLIO, a small river of Sicily, anciently Orethus.

AMMIRALIS, in Entomology, a species of Cerambix found in Surinam. Thorax rather spinous; fourth joint of the antennae bearded, second spinous. Gmelin. General colour black; base of the wing cilia and sides of the thorax reddish.

AMMIRATO, Scipio, in Biography, an eminent historian of the 16th century, was born at Lecce in Naples, in 1531, and descended from a considerable family, which was expelled from Florence by the Ghibelines. He was originally designed for the profession of the law, and with this view went to study at Naples in 1547; but his taste for polite literature diverted his attention from this kind of study. His father was much offended, and withheld from him necessary supplies, whilst he visited Venice and Padua, so that he was obliged to return to Lecce, to take orders, and to accept a canonry which was conferred upon him by the bishop of this city. At Venice, whither he afterwards removed, his life was endangered by an intrigue; and at Rome he had a quarrel with the pope's usher, which obliged him to return to Lecce, where he founded the academy of the "Transformati." After many projects and wanderings in Italy, he at last settled at Florence, where in 1575, he was engaged by the Grand Duke Cosimo to write the Florentine history. Though he was of an inconstant and querulous temper, he continued in the possession of a canonry, and in the apartments provided for him by the duke for the remaining 30 years of his life. Here he died in 1621, and appointed the affidavit of his studies, Chirilphoro del Bianco, for his title; who, in conformity to his will, took the name of "Scipio Ammirato the younger." His "Florentine History," first published in 1626, contains the events of Florence from its foundation to 1574, and is much esteemed for its extent and accuracy. The second part was published by Ammiano the younger in 1641, who gave a new edition of the first part, with many additions.

Ammirato the elder wrote also genealogical accounts of the principal families of Florence and Naples, which were very favourably received; and he published "Discourses on Tacitus," with several essays, historical, moral, and political. He wrote arguments in verse, to all the cantos of "Orlando Furioso," and other pieces of poetry; but in this kind of composition he did not excel. Gen. Diat.

AMMITES, or HAMMITES, in Mineralogy, a species of lime-stone. See Roystone.

AMMOCETUS, in Ichthyology, an obsolete name given by Gmelin and some others, to the AMMODYTES of Linnaeus.

AMMOCHEA, from αμος, sand, and κεράς, I lay along, in the Ancient Physic, a kind of a remedy, or operation for drying the body, by lying along on warm sand, and having the body covered with it. Some prefer falt for this purpose to sand.

AMMOCHEUS, in Ancient Geography, a promontory of the island of Cyprus south of Salamis; whence, by corruption, is derived the modern name Famagousta.

AMMOCRYSYS, the same as golden sica, which see.

AMMOCHEYSUS, in Natural History, a kind of gem, supposed to be the same with the aonarine.

AMMONIDES, in Ancient Geography, a promontory of Cilicia, between Pyramus and Cydnus.

AMMODYTES, in Zoology, a species of Coluber, very nearly allied to the viper. It inhabits many places in the easter regions, and the mountainous parts of Ilyria; and hence it has been called vipera illyrica. The Linnaean specific character is taken, as in general throughout the genus, from the abdominal plates and fulcral scales which are 12—32. Its general description is sometines brown, sometines pale bluish, with a black dentated dorsal band; the dentations being turned backwards. Nofe terminated by an erect wart.

This species is said to be extremely poisonous, and, according to Matthiolus, proves fatal in the space of three hours.

AMMODYTES, in Ichthyology, the name of a genus in the Linzneen system, of which only one species has been hitherto discovered. The generic character is, head compressed, narrower than the body; upper lip doubled, lower jaw narrow and pointed: teeth sharp pointed. Gill mem-
brane of seven rays. Body long, square. Tail fin distinct. This species is Tobiasius Linneus. This species inhabits the sandy shores of the Northern seas, and is known by the name of tobian, tobis, fandalis, fandibz, and fand lanece. It is usually from nine to twelve inches in length, its general colour silver white, grecchif on the back.

The name is formed from ammons, sand, and even, a river, expressive the quality of this creature, to live into, or bury itself under the sand.

AMMON, or HAMMON, in Antiquity, an epithet given to Jupiter in Lybia, where was a celebrated temple of that deity under the denomination of Jupiter Ammon, which was visited by Alexander the Great.

There has been a great dispute about the origin of this name. Some derive it from amon, sand, because the temple was situated in the burning sands of Lybia; others borrow it from the Egyptian anam, a ram; as having been first discovered by that animal. Others have will Ammon to signify the fun, and the horns wherewith he is represented the fun-beams. To this purpose Macrobizobberes (Saturn. c. 13.) that the inhabitants of Egypt worshipped the fun as the only divinity and soul of the universe; and they represented him under different forms, according to the various appearances of this luminary; in his infancy at the winter solstice, in his youth at the vernal equinox, or in spring, in his maturity at the summer solstice, and in his old age at the autumnal equinox.

The word Ammon, composed of Am ucin, shining, according to Jabloniki (tom. i.) denoted the desired effects produced by the sun on attaining the equator, such as the increase of the days, a more splendid light: and, above all, the fortunate prelude of the inundation and abundance. Ammon is said to have been originally derived from Ham, the son of Noah, who first peopled Egypt and Lybia, after the flood; and when idolatry began to gain ground soon after this period, he was the chief deity of these two countries, in which his descendants continued. A temple, it is said, was built to his honour, in the midst of the sandy deserts of Lybia, upon a spot of good ground, about two leagues broad, which formed a kind of island or oasis in the sea of sand. He was esteemed the Zeus of Greece, and the Jupiter of Latium, as well as the Ammon of the Egyptians. In process of time these two names were joined, and he was called Jupiter Ammon. For this reason the city of Ammon, No-ammon, or the city of Ham, was called by the Greeks Diopolis, or the city of Jupiter. Plutarch says, that of all the Egyptian names which seemed to have any correspondence with the Zeus of Greece, Ammon or Ammon was the most peculiar and appropriate. From Egypt his name and worship were brought into Greece; as indeed were almost all the names of all the deities that were worshipped. "Bryant's Mythol. vol. i. p. 5.

However this be, Jupiter Ammon, or the Egyptian Jupiter, was usually represented under the figure of a ram; though in some medals he appears of a human shape, having only two rams horns growing out beneath his ears.

The Egyptians, says Proclus, in Timaeus of Plato, had a singular veneration for the ram, because the image of Ammon bore his head, and because this first sign of the zodiac was the preface of the fruits of the earth. Eusebius (Prap. Evang. lib. iii.) adds, that this symbol marked the conjunction of the fun and moon in the sign of the ram.

Jupiter Ammon, the object of worship in every part of Egypt, was honoured in a peculiar manner at Thebes; and the Greeks, from this circumstance, denominated it Diopolis. Herodotus, Diodorus Siculus, and Pliny have given particular descriptions of the magnificent temple of Ammon at Thebes; and although it was defaced and ruined by Cambyses, there still remain vestiges of its ancient grandeur. In this temple there was a statue of Jupiter Ammon. The Ethiopians came down the Nile once a year to worship this deity at Thebes, and they had a small portable temple of this deity, which they carried with them to their habitations and to those of the Libyans, for the purpose of celebrating prosperous events by feasts and dances. This association for religious exercises of the Egyptians, Ethiopians, and Libyans, continued under the reign of Theodotus the younger. The Greek mythologists did represent Bocchus, after his conquest of Asa, passing with his army through Africa, and reduced to dillets for want of water, when his father Jupiter, assuming the shape of a ram, led him to a fountain where he and his exhausted troops were refreshed with water; and in gratitude for this salutary relief they say, that he built a temple to Jupiter, under the name of Ammon, from amanus, sand, alluding to the sandy desert where it was built.

AMMON, or BEN-AMMON, in Scripture Biography, the son of Lot, was the father of the Ammonites, and lived about 1500 years before Chrlst.

AMMON, in Entomology, a species of Formica, with a double-spined thorax, petiolated quisma, and the two spines incurved. It is found in New Holland. Fabricius.

AMMON, a species of Scarabaeus, found in America. Thorax, with three teeth; a recurved horn on the head; wing-cases frilated. Linneus.

AMMON, in Ancient Geography, a city of Marmica, in Africa, which belonged to the Ammonites, according to Ptolemy; but Arrian says, that it was only a spot of ground in which the temple of Ammon was erected. It seems probable from Herodotus, (lib. iii. c. 25, 26.) that the Ammonites were a populous nation, and had a king of their own, though part of their territory could only be considered as a barren, sandy desert. From this ancient historian we learn, that Cambyses, having advanced to Thebes, in his way to Ethiopia, detached from thence a body of 50,000 men to lay waste the country of the Ammonites, and burn the temple of Jupiter Ammon; but that, after several days march over the deserts, a strong and impetuous wind blowing from the south, raised such a torrent of sand, as to overwhelm and destroy the whole army. Alexander the Great, about 200 years after this time, was more successful in his journey to that temple. Pliny places the temple of Ammon at the distance of about 12 days journey from Memphis, and mentions the Ammonite name of Egypt. Diodorus Siculus and Quntius Curtius (lib. iv. c. 7.) relate, that though this temple was surrounded by a sandy desert, yet its proper district abounded with trees bearing great plenty of fruit, and was ornamented with fountains. It had also several streets or villages in the neighbourhood of the temple, a cattle fortified with a triple wall, and near it a holy fountain, called the Fountain of the Sun, because the qualities of the waters varied wonderfully every 24 hours; being warm in the morning, cool at noon, warm in the evening, and scalding hot at midnight. Strabo (lib. xvii.) informs us, that, under the reign of Augustus, the vefles of the Sybilis, and the Tuscan divinations, had depreciated the reputation of the oracle of Ammon; and in the 14th century it was forgotten; though the Arabs assert, that the district, in which it was situated, was still inhabited, The Fountain of the Sun, described by Quintus Curtius, was nothing more, according to their account, than a hot spring, which seemed to be warmer in the night than in the day.

AMMON, in Zoology, a species of Ovis, or sheep, in
Gmelin's Linnean system; the character of which is, that the horns are large, in quadrupeds; four or five, and divergent, wrinkled on their inner surface, and fluted on the under side; and the neck has two pendant hairy wattles. This is the capita ammon of the Syi Nat. loc., or capra orientalis of Buffon, muflon et origio of Pissar, muflion, or muflion of Gmelin, muflion et tragulus Bellonii of Ray, tragulus, or muflon of Klein, capra capra cornibus aiutinis of J. G. Gmelin now, comp. der., ovis ferris, vulgo argali dicta of Pallas, musus of Buffon, specific barami of J. G. Gmelin, B. Opinion, barano der. or musus of Steller, das Wilds. sauf, et der wiekler der alten of Gmelin, thiech, orientalica in island of S. G. Gmelin, wild sheep of Pissar, and Siberian cervidae of Buffon. It inhabits, in small flocks, the rocky and declivitous tracts of the Alpine region in the centre of Altai, in Kamtschatka, the Kirg. islands, probably on the west side of North America and California, and more certainly on the highest mountains of Barbary, Saratia, Corsica, Greece, and the deserts of Tartary.

It is very wild, fast, and active, and fights violently with its horns, acquires its full growth in two years, and Eildom lives more than 14; the female produces one or two lambs in the month of March. The general colour in Summer is a brownish ash, mixed with grey on the upper parts of the body, and a whitish ash on the lower parts; in Winter the former changes to a rusty grey, and the latter to a whitish grey; the tail is very short, of a whitish colour, and brown on the tip; the hair in Winter is about an inch and a half long, which falls off in Spring, and in Summer the coat is very short; the ears are erect and sharp pointed; the eyes are large, and generally of a brown or blue colour; the horns, which arrive at their full size in three years, are whitish, angular, wrinkled transversely, large, close at their bases, and placed on the top of the head, rising at first nearly upright, reflected backwards, divergent, and turned downwards and outwards at their ends: those of the female are smaller and more hooked, but are sometimes entirely wanting; the horns of the old rams are said to grow to such an enormous size, that each of them weighs between 30 and 40 Ruffian pounds, and measures, with its curvatures, two Ruffian ells in length; the hind-legs are rather longer than the fore-legs, by which the animal is better adapted for running up hills than on level ground; the flesh fat and are esteemed great delicacies in Siberia; the Kamtschakians clothe themselves with the skins of these animals. Mr. Pennant distinguishes between the Corfican argali, or ovis ammon Europea, and that of Siberia; though the difference seems to consist chiefly in colour; the former being of a brown colour tinged with tawny on the upper parts, with a white mark on each side pointing to the belly. A specimen, brought from Corfica to England by Paoli, differed from the above in colour, having a large white spot on the front of the neck, and being black on the shoulders. In Corfica this animal is denominated Mufro. It is probable that the argali once inhabited Britain, as Boeclius mentions sheep in St. Kila larger than a be ox, with horns as big as those of an ox. In confirmation of this account, the figure of a mufon has been discovered in a piece of Roman sculpture, taken from Antoninus's wall, near Glaafs. Buffon says, that the mufon seems to be the primitive rock of all the different varieties of sheep.

The Kamtschakians have not attempted to domesticate the argali; but they spend the Summer in hunting them on the wild and precipitous mountains on which they feed. Sometimes they set bent cross-bows in the paths through which they expect the argali to pass, in such a position, that when the animal tends on a thing lying to the bow, the arrow is discharged and lodged in its body. Sometimes they employ dogs in the chase. The dog never overcomes the wild sheep; but while the sheep's attention is engaged by the dog, the hunter, without being observed, approaches near enough to seize it with a ball or an arrow. The Mongols and Tung'is attack them in a different manner. They take out a great number of hounds, and dogs, and endeavour to encompass the flocks by farreight; but this is not easily done, as they are so swift, and so cunning, that when they disinguish, either by sight or by smell, the approach of an enemy, they instantly make their escape.

AMMONIA, in Agriculture, a term applied to volatile alkali, a substance which has lately been found useful in vegetation. It is formed from the decomposition of all animal and some vegetable matters during the process of putrefaction. It has been suggested by Dr. Darwin, in his treatise on agriculture and gardening, that in the decomposition of water, which particles take place after being absorbed by the roots of vegetables, the hydrogen, by its union with oxide, produces ammonia, which may contribute to the maintenance of plants by its mixture with oils, and thus produce foams which become diffusible in water, and also by decomposing insoluble saline earths, as gypsum or metallic salts, as vitriol of iron, and by this means producing more soluble or innocuous saline matters in the soils.

AMMONIA in Antiquity, feasts celebrated at Athens, mentioned by Hefychus.

AMMONIA, of Volatile Alkali. Alkali volatile, Ammoniacae, Fr.—Alkali fluebiges; Harzflueigh, urinflueigh, fluebiges, Germ.

Under the article Alkali we noticed some of the peculiar properties of the volatile alkali whereby it is distinguished from the fixed. We shall, in this place, give a more particular account of ammonia, which requires considerable notice from its high importance as a chemical agent, and from the numerous researches which have been made into all its properties and combinations, with more success than perhaps it has fallen to the share of any other substance of equal value to the chemist.

As ammonia is never found native in an uncombined state, and is, in most cases, a product of various natural or artificial processes, we shall refer the reader to the articles Animal matter, Carbonat of ammonia, Muratt of ammonia, and salt of Hartsnop, for every thing that relates to the natural history of this alkali and its production in the large way as a manufacture, and shall here confine ourselves to the purely chemical description.

The volatile alkali (like so many other chemical agents) when perfectly pure and uncombined, is only known to us in the form of a gas; and, as it is the only one of the alkalis which is capable of assuming this form in any common degree of heat, the term alkali is, nay, by Dr. Priestley and many other chemists, is synonymous with amoniall gas. This gas has the following properties: It poiferates a most pungent smell, which, when strongly fumeled up the nostrils, provokes to vomiting, and gives a temporary sense of suffocation, owing to the contraction of the surfaces which it produces. To the taste it is highly stimulating and acid, and quickly corrodes the skin of the tongue and lips, so that it cannot be taken into the mouth in the undissolved form with safety. It is speedily fatal to animals that are immersed in it, and it extinguishes a taper; but the flame of this last is first enlarged, and becomes of a pale yellow colour. Ammoniall gas is, next to hydrogen, the lightest of all the gaseous bodies. Its specific gravity,
gravity may be reckoned about 0.735 (distilled water being 1.000) whereas atmospheric air is 1.25; or nearly twice as heavy as alkaline air. The absolute weight of 100 cubic inches of this gas at 30°, and 61° therm. is reckoned by Kirwan to be 18.16 grains. It is highly distilable by heat, and at a very high temperature is decomposed. It is also very rapidly and copiously absorbed by most liquids, especially by water, and hence it cannot be kept over water; but, for the purposes of experiment, it must be confined in well closed bottles or over mercury.

Ammoniacal gas is given out during the distillation of alkali almost every animal, and some vegetable matters, but it cannot in this method be procured sufficiently pure for chemical experiments. For this purpose the muriate of ammonia (or common crude sal-ammoniac) is the most convenient material for yielding the gas. This salt is readily decomposed by quicklime, which latter unites with the muriatic acid of the salt, and expels the ammonia in its purest and most caustic form of gas. The decomposition is so speedy, that a very pungent smell of volatile alkali is perceived merely on rubbing together these two substances. If one part of dry sal-ammoniac is mixed with two parts of well burnt lime (or less if the lime is good), put into a dry phial or earthen tube, and heated gently, the ammoniacal gas rises in great abundance, and may be directed by means of a bent tube under a jar full of dry mercury, where it may be preferred in the gaseous form for any length of time. Many of the metallic oxys, especially minium or litharge, will supply the place of the lime and expel the gas from the muriate of ammonia in very great purity. A still more simple method of obtaining the gas is to apply a gentle heat to the liquid or watery solution of ammonia, which expels from it the alkaline air that the water had previously been made to absorb at a lower temperature. It may be remarked that the discovery of ammonia in a gaseous form, as well as many of the most interesting properties of this alkali, is due to Dr. Priestley.

Ammonia, dissolved in water (forming the liquid ammonia of modern chemists, the fluid volatile alkali of former times, or the aqua ammonica pure of the London Pharmacopœia) is the form in which the caustic ammonia is the most familiar to us, and in which many of the properties of the alkali can be most conveniently examined. This pure should be perfectly transparent and colourless as water, should have the strong burning taste and pungent smell of ammonia, and should give no effervescence with acids. This latter tells delvers attention on account of the variety of volatile alkaline liquors that are prepared, all of which, except the aqua ammonica pure, contain more or less carbonic acid, and are much milder in all their sensible properties.

Ammoniacal gas is absorbed by water with great rapidity, and at the same time a considerable quantity of heat is given out from the gas, which is sufficient to raise the temperature of the water, and to be sensible to the hand. The same gas, when put in contact with ice, mixes it with apparently as much rapidity as if the ice were put into a fire, and is greedily absorbed, at the same time that considerable cold is produced. At a moderate temperature water may be made to distil nearly one third of its weight, or many hundred times its bulk, of this gas. The bulk of the water is so much increased by this process that it becomes specifically lighter than distilled water. Mr. Davy, in his experiments on this subject, (Researches into nitrous Oxyd, 1800,) found that at the temperature of 52°, 100 grains of liquid ammonia, holding in solution 9.502 grains of the alkali, gave a specific gravity of .9984. When perfectly saturated, 100 grains of the liquid alkali contained 3.57 grains of ammonia, which is still one-third of the weight of the water employed, and had the specific gravity of .8054. Other writers, however, make the specific gravity of saturated liquid ammonia as little as .8077. The gentle heat of a spirit lamp again expels the alkali in the form of gas, but the last portions require a longer ebullition before they can be made to quit the water. When liquid ammonia is exposed to a very intense cold, sufficient to freeze mercury, as Misses. Fourcroy and Vanquelin have observed, it becomes a grey semi-transparent mass, of the consistence of a very stiff jelly, and with scarcely any odour.

The liquid ammonia is prepared in two methods. That which is the oldest and the most usually practiced, is to mix together quick-lime, muriate of ammonia, and water, and to distil the mixture with a gentle heat. The London Pharmacopœia orders for the preparation of the pure liquid ammonia, two pounds of lime, mixed in two pints of water, and one pound of sal-ammoniac, which are to be mixed with six pints of hot water, and to be kept in a covered vessel till cold. The liquor is then to be distilled, and the first pint which comes over is the pure liquid ammonia. This liquor, however, is by no means saturated with the alkali, for during the heat, even of a gentle distillation, the solvent power of the water is much lessened. The most elegant and effectual way of preparing this liquor is to distil the gas from the dry materials; and by using the beautiful apparatus of Woulfe, to caufe the alkaline air to pass into cold water where the absorption is much more speedy; and if necessary, the increase of temperature produced by this absorption may be prevented by surrounding the bottles with ice. The proportions of the ingredients here used, may be two parts of lime mixed in as little water as possible, mixed with one part of dry muriate of ammonia and put into a retort for the production of the gas; and in the condensing bottles, about as much water as the weight of the sal-ammoniac employed. The liquid ammonia is known to be thoroughly saturated with the alkaline gas, when the bubbles pass through the water undiminished, and no further absorption takes place.

Many of the combinations of ammonia with different chemical agents are highly curious and important; but as most of them produce alterations which depend on the decomposition of this alkali, they will be better understood by the reader, if we first relate some of the multitude of facts by which the analysis of ammonia has been ascertained. The constituent parts of the volatile alkali are, hydrogen (or the basis of inflammable air), and azot (the basis of phlogisticated air), the proportions of these two substances are, about 20, in weight of the former, and 112 of the latter; and it may be remarked that this is the only simple combination of these two substances with which we are certainly acquainted. The proofs of this analysis we shall relate nearly in the order of discovery by the various eminent chemists who have thrown light on the subject.

Dr. Priestley was the first who remarked a very interesting change produced on alkaline air by means of electricity. For this purpose he confined a known portion of this gas in a jar over mercury, and passed a number of successive electric explosions and sparks. He found after every shock that the bulk of the confined air increased, and continued to do so till it had expanded to nearly three times its original bulk. The air was now much altered in its properties, for on letting up some water into the jar, scarcely any of the gas was absorbed, whereas before electrization every particle...
AMMONIA.

ticle of it would have rapidly united with this fluid. The

The gas was found to be highly inflammable, and exploded when

mixed with common air, in the same manner as the inflam-
mable air procured from iron by an acid. The gas likewise

after being a short time in contact with water had entirely

lost its alkaline smell. The colour of the electric spark

taken in the alkaline air was red, but white in the centre,

when any considerable explosion had been taken.

The same eminent chemist likewise found alkaline air to

de be decomposed by passing through a red hot tube, though

not so completely as by the electric spark. In performing

this experiment he found the tube, through which the al-
aline vapour had passed, lined with a black matter, and

the liquor collected after this distillation also became

with the same sub stance. This is probably owing to some
diffusion in the tube which admitted carbonaceous matter

from the hot coals, as we shall mention hereafter. Another

property of alkaline air, highly illustrative of its composition, is

the reduction of several metallic oysds which it effects

when they are heated in contact with it. Dr. Priestley

confined some litharge, or oysd of lead, in this gas, and by

heating it with a burning lens (a method of applying heat

of all others the most accurate), he revived the lead in its

metallic form, and a quantity of phlogisticated air remained.

The red mercurial oysd, or red precipitate, was heated in

the same manner, and the mercury was revived, and at the

same time a considerable quantity of water was produced

so as to run down in drops on the sides of the jar, which

before appeared perfectly dry. The red precipitate, how-

ever, gave out during this reduction a large quantity of un-

combined phlogisticated air, which appeared in the residu-

al air after the reduction was completed. This, in another

experiment with the same materials, united with some of

the inflammable air contained in the alkaline gas and caused

a considerable explosion. The antiphlogistic theory will

readily explain the production of water during the experi-

ment from the union of the oxygen of the red precipitate,

and the hydrogen of the ammoniacal gas; but this fact

more properly belongs to the subject of water and phlo-

giston.

These experiments were soon repeated by various che-
nists, and with similar results. Landriani found, that in

passing ammoniacal gas through a tube heated white hot,

the alkaline properties were entirely lost, inflammable air

was produced, and likewise a small portion of carbonic acid

sufficient to give a precipitate with lime water.

Van Marum, in his experiments on the effect of electrifi-
city on the gases, found the same results with ammoniacal

gas that we have just mentioned. Two cubic inches and

devn eighths of the alkaline gas were enlarged to four inches,

and the air was no longer absorbed by water, and was high-

ly inflammable.

Whilst the properties and composition of the volatile al-
kalies were made the subject of so much ingenious and suc-
cessful research by Dr. Priestley, they received full elucidation
by the labours of one of the most eminent of the French

chemists, M. Berthollet.

This excellent experimentalist found, that when the oxy-
genated marine acid is added to liquid ammoniun perfectly
cautious, a considerable effervescence takes place, and a quan-
tity of gas is collected from the two liquids, which, when

examined by the usual chemical tests, proves to be pure

azotic gas. At the same time the oxygenated acid loses its
peculiar pungent smell, and becomes converted into

simple marine acid. The explanation given of these phe-

nomena is, that the ammonia is decomposed by the oxy-

nated acid; the hydrogen of the alkali unites with the ex-

cess of oxygen contained in the acid, and forms a water,

which mixes with the acid; whilst the azot, the other con-
stituent part of the ammonia, appears uncombined in the

form of gas. The gas was found by Berthollet to be

azotic, both by the common methods of examination, and

by its forming nitrous acid when united with oxygen by

means of the electric spark, in the method that M. Ca-
vendish had discovered. The same decomposition takes

place if the oxymuriatic acid and the ammonia are used in

form of gas. See oxymuriatic acid.

This theory of the decomposition of ammonia was also

beautifully illustrated by the same ingenious chemist, in his

accurate and original experiments on the nature and prepara-

tion of fulminating gold. This will be given more at

length under the article gold; but it may be here men-
tioned that the fulminating compound is formed by precipi-

ting a solution of gold in aqua regia by the volatile al-
kalies. This precipitate consists of the metal of oxygen

which it acquires during solution in the acid, and of a par-

t of the ammonia employed to separate it from its menstru-

um, which is retained by the metallic oysd, and which gives

it the property of exploding in a very gentle blast. M.
Berthollet ventured to explode small and known quantities

of this preparation in copper tubes, and found the prod-

ucts to be water and azotic gas, and the oysd of gold

completely reduced. The ammonia therefore is here de-

composed, its hydrogen produces water with the oxygen

of the gold, and its azot is set at liberty in the form of

gas. Some other of the metals which have a weak affinity

for oxygen are reduced to a regulare state by means of the

volatile alkali, which is also decomposed in the process.
M. Berthollet also repeated Dr. Priestley’s experiment of

the analysis of ammoniacal gas by electricity, taking every

possible precaution in order to ensure an accurate result;

and the calculations deduced from it have been very gen-

erally acquiesced in, and confirmed by subsequent experi-

ments. For this purpose he passed a succession of electric

sparks through 1.7 cubic inches of ammoniacal gas till it ac-
quired its utmost degree of expansion, when it occupied 2.3 cubic

inches, a degree intermediate between the results of Dr.

Priestley and M. Van Marum. A certain quantity of this

enlarged gas was then detonated with a superabundance of

oxygen gas in Volta’s electuiometer, whereby water was pro-

duced and the azotic gas of the ammonia remained unal-

tered. Then (alluming the quantity of oxygen entering

into the composition of water to be the hydrogen, as

74 to 145, according to the calculations of M. Monge,

given in the Memoirs of the French Academy) M. Ber-
thollet estimates the proportions of the constituent parts

of ammonia to be 2.9, in bulk, of hydrogen, to 11 of azot,

or, in weight, (alluming the hydrogen to be eleven times

lighter than the azot) 150 grains of ammoniacal gas will

contain 121 grains of azot, and 29 grains of hydrogen.—

Journal de Physique for 1786.

The above are the principal facts which have been brought
to prove the decompositon of ammonia. A number of others,
equally important and curious, will throw light on the

mode of its formation from the union of its constituent

parts.

An accidental production of ammonia in circumstances

where it had not been expected had frequently been re-

marked by various chemists. Dr. Priestley, in his numer-

ous experiments on nitrous air, found by accident that when

iron filings had been long kept in a jar, and moistened with

a diluted solution of copper in the nitrous acid, a thick
AMMONIA.

A production of ammonia, in somewhat similar circumstances, is likewise particularly noticed by Mr. Hauffman of Colmar. (Journal de Physique for 1787.) He relates, that on mixing nitrous gas with phlogilificated precipitate of iron, a large quantity of the gas is absorbed, leaving only a small residue of phlogilificated air; and on adding caustic fixed alkali to the iron precipitate, a fume of volatile alkali is very perceptible, and a flame moistened with nitrous acid and held over the mixture also indicates the presence of ammonia by forming dense white fumes. Mr. Hauffman distinguishes accurately between the phlogilificated and the dephlogilificated solutions of iron, the former being formed by dissolving the metal in nitrous acid, or in the vitriolic without previous preparation; and the latter being a solution in vitriolic acid of iron which has previously precipitated from a nitrous solution, and is therefore fully dephlogilificated, or, as is now said, in the highest state of oxygenation. The same chemist employed the solutions of iron in various states, and found, that wherever nitrous gas was absorbed by the iron, a certain quantity of ammonia is also produced, which he also observes, probably remains in union with the vitriolic acid till it is displaced by caustic fixed alkali. The properties of this compound of nitrous gas and oxyd of iron will be examined more particularly under the article EUDIMETRY, as it is intimately connected with this subject.

Still further light was thrown on the curious phenomenon of the production of ammonia, by some interesting experiments of Dr. Aultin. (Philosoph. Transact. for 1788, vol. xlviii.) The composition of ammonia having been fully ascertained by the experiments of Prieflley, Berthollet, and others, Dr. Aultin attempted to produce the alkali by a direct union of its constituent parts. For this purpose he mixed inflammable and phlogilificated airs in different proportions, and added to them some of the acid airs in order to favour their combination, tried the effects of cold, of heat, of electricity; and lastly, he decomposed alkaline air, and endeavoured to reunite the identical parts, but in no instance could he succeed in forming ammonia from the constituent parts of this alkali, unless both were employed in a gaseous form.

Hydrogen and azot, however, are certainly the constituent parts of ammonia, and their refusal to unite when in the form of gas led Dr. Aultin to vary his experiments by mixing these substances together in such a manner that the hydrogen should be involved in an atmosphere of azotic gas just at the time when it was itself beginning to assume the gaseous form. This has with great propriety been termed the nascent state of a gas, and this experiment was suggested to Dr. Aultin by another very striking production of ammonia from nitrous acid and tin, which we shall presently mention. He therefore inclosed in a glass tube some azotic or phlogilificated air, and along with it some iron filings moistened with water, which last were known to yield inflammable air after standing together for some hours; and this air therefore in its nascent state, or at the infant of its formation, was in full contact with the azotic gas. To detect the precise quantity of ammonia he also inclosed in the tube some paper stained with the blue of the ind of the radish, which was turned to green by alkalis. In twenty-four hours he found the colour entirely green. Another test was also used to indicate the presence of ammonia, which was paper stained with a solution of nitric acid and copper; the green of which, in a few days, converted to blue, the proper colour of a solution of copper in ammonia. Dr. Aultin found nitrous air to effect a much more speedy production of ammonia when used instead of the azotic gas. Atmospheric air will also succeed, but requires a longer time than the azotic air, so that ammonia should always be formed whenever iron in contact with water-woods in the open air. In this formation of ammonia by the direct combination of its principles, it is necessary, as Dr. Aultin observes, that the hydrogen should be only in the nascent state when it comes in contact with the azot, for if it is already in the form of gas it cannot be made to unite with the azot in any form so as to produce ammonia.

We may here remark, that this mode of effecting chemical union between bodies which, when uncombined, are only known in the gaseous form, (such as oxygen, hydrogen, and azot) by presenting one to the other when in the nascent state, should always be kept in mind in experiments of research, as it may be the means of very important discoveries in this difficult part of experimental chemistry. Mr. Kirwan, in his valuable experiments on hepatic air, observed the formation of volatile alkali when this air was mixed with nitrous gas. At the same time fulprur is decomposed. Another very striking experiment on the formation of ammonia, which is easily made and seldom fails of success, is the following. Take some powder, or filings of tin or zinc, pour on them some moderately dilute nitrous acid, which will act on them with great vehemence, and the disengagement of copious red fumes. After a short time fire into the mixture some quicklime or caustic alkali, and a very strong pungent smell of ammonia will be produced. In this case the ammonia is formed by the decomposition of the nitrous acid and the water, this ammonia instantly unites with a portion of the acid, forming nitrated ammonia, and the lime again decomposes this ammoniacal salt by simple affinity, and by displacing the alkali from its union with the acid, causes it to assume the gaseous form and to become evident to the senses.

Before we quit the subject of the composition of ammonia, we shall make a few observations on the decomposition of nitrous gas and nitric acid in the experiments above related, whereby the volatile alkali is produced. In the simpler methods of forming ammonia, such as Dr. Aultin's experiments, the union of the nascent hydrogen with azotic gas, the affinities which operate in forming the alkali, may be supposed to be tolerably simple, but when the nitric acid or nitrous gas are used, the affinities appear to be extremely complex, and perhaps hardly made out with much certainty. It should be noted, however, that, along with the production of ammonia, there appears concomitantly a proportionate quantity of that singular gas discovered by Dr. Priestley, and called by him dephlogilicated nitrous air; and of late denominated nitrous oxyd by Mr. Davy, to whose highly ingenious "Researches" we are indebted for much important addition to this curious and difficult part of chemistry. It is a striking property of the nitrous oxyd to support combustion in a very eminent manner, and very similar to oxygen gas, although it contains a less proportion of oxygen, and more azot than nitrous gas, which
AMMONIA.

which is unfit for combustion. This resemblance to oxygen gas in the nitrous oxyd has milled some chemists in the nature of the air left after the formation of ammonia from nitrous gas and nascent hydrogen, who have supposed a production of oxygen, and have been obliged to account for it accordingly. 'To explain the changes that take place with moistened iron filings, confined in an atmosphere of nitrous gas, we must observe, that the new compounds, which we know are formed out of these materials, are ammonia, confiding of azot and hydrogen, and nitrous oxyd, composed of much azot and little oxygen. The iron likewise is rilled or oxygenated. The source of the hydrogen in the new products may be supposed to be some of the water decomposed, from which the metal, in rolling, has abstracted its other constituent part, the oxygen. The only source of the azot (allowed by the antiphlogistic theory) is the nitrous gas, which is composed merely of this principle, and of oxygen. But if merely a portion of the azot of the nitrous gas was abstracted from it, the remainder, by losing azot, would be a substance containing (proportionally) more oxygen than nitrous gas; whereas, the nitrous oxyd, which is this remainder, contains less. There must, therefore, be an additional method of getting rid of this excess of oxygen, in order to produce a satisfactory explanation; and the only substance that offers is the hydrogen of the water decomposed by the metal, which may be supposed to unite with enough of the oxygen of the nitrous gas to reduce it to the state of nitrous oxyd. Thus then, according to this hypothesis, the metal decomposes the water, the hydrogen fre at liberty by this decomposition unites with a small part of the azot of the nitrous gas to form ammonia, and with a greater part of its oxygen, to form water, and the residue of the nitrous gas is in that proportion and mixture which constitutes nitrous oxyd.

We shall not pursue this subject farther at present, as it will apply to all the cases of the production of ammonia by nitrous acid, and it may, perhaps, be thought too hypothetical to be further infilled on, though there are many similar examples to be met with, of very extensive and complicated affinities being set in motion by a single disturbance of the quiescent attractions of the constituent parts of any of the substances contained in the mixture.

Having now enumerated some of the leading facts by which the composition of the volatile alkali has been established, we shall proceed to mention some of the mixtures of ammonia with various chemical agents. It may be observed that though the combined volatile alkali is in the form of gas when pure, all its combinations are either solid or liquid, and hence every substance added to the ammoniacal gas causes an absorption of it where any chemical action takes place. However, the tendency to the aerial form is so far retained by ammonia in all its combinations as to render them volatile, and to weaken its adhesion for them, whenever the temperature is raised to a certain degree. The force of affinity which ammonia exercises is therefore remarkably weakened by heat, where the substance to which it is united is naturally fixed in the fire, and many of the ammoniacal compounds at a high temperature are totally decomposed, and entirely new products result from the operation.

No union takes place by any simple mixture of ammonia with oxygen, hydrogen, or azotic gases. Under particular circumstances, and by the agency of complicated affinities, these substances may however be mutually decomposed, and new compounds produced. Thus, ammoniacal gas passed over heated oxyd of manganite forms Nitrous Acid, as discovered by the ingenious experiments of Dr. Miller.

Ammonia unites with all the acids with very great ease and rapidity, forming with them very easily soluble salts. There will be particularly mentioned under the respective acids, but some of their properties may here be mentioned. The union of alkaline air with the acid gasses, as discovered by Dr. Priestley, forms some of the most striking and beautiful experiments which chemical facts furnish. If ammoniacal gas is passed up into a jar containing carbone acid there is a thick white fisume immediately produced, the two gasses by uniting lose their gaseous form, so that there is a complete vacuum suddenly made in the jar, containing the mercuriu mercury over which it is confined to rise and fill it entirely, a sensible quantity of heat is given out, and a number of minute crystals of carbonated ammonium lining the inside of the jar, is the product of the mixture.

With the nitric acid gas the appearances are exactly similar, only the white fisume is still more dense and copious, the heat greater, and the union more rapid. Crystalline feathers of mutiated ammonia are the result, and this furnishes one of the most striking influences of alteration in form, and in sensible properties, which two bodies may undergo by chemical affinity; for each of the ingredients when separate are in the state of an indivisible gas with a highly pungent smell, and, when united, a fentinous solid salt is the product. In making this beautiful experiment both the gasses should be confined over mercury; and, on account of the much superior specific gravity of the gas acid over the alkali, if the former is thrown into a jar of the latter, the white cloud will form slowly, beginning from the point of contact of the gasses; but if the alkali be added to the gas acid, it rises through it immediately, and the combination takes place with great rapidity.

The nitric acid unites with ammonia with great ease, and with the production of white fumes when the two substances are gaseous. The resulting salt Nitrat of ammonia possesses very interesting properties, which will be mentioned under that article.

It may be of use to know that the presence of ammoniacal gas, where it cannot conveniently be detected by the smell, will be readily known by holding a piece of glass rod or any other substance wetted with nitrous or nitric acid, over the part where ammonia is suspected, when thick white fumes will be seen to form around the acid.

Phosphorous will not unite with ammonia at a low temperature. In a red heat the alkali is decomposed, and phosphoricd hydrogen, and azotic gas are produced.

With sulphur, ammonia unites with some difficulty, forming the Sulphuret of ammonia, or Boyle's fuming liquor.

Charcoal and the volatile alkali do not unite in a moderate heat, but at high temperatures the alkali is decomposed, and, by particular management, that singular substance, the Prussic acid, may be formed.

The affinity of ammonia for the different acids is much weaker than that of the other alkalis, and several of the earths. In several solutions of earths or metals in acids, where the affinity of ammonia for the acid is only in a small degree greater than that of the earth or metal, only a part of the substance dissolved is precipitated by the addition of this alkali, and the solution retains the remainder, united with the ammonia, forming together an ammoniacal triple salt. Thus if to a solution of magnesia ammonia is added, part only of the earth is precipitated, and the remaining solution is an ammoniacal magnesia. Also the affinities of ammonia are much weaker by heat, owing to the great tendency to volatilisation which the alkali possesses.

Ammonia has a very striking property of reducing to the metallic state (either entirely or partially) the oxydes of the several metals. This is performed, as we have already mentioned
tioned in the intantne of fulminating gold, by a decomposition of the alkali, its hydrogen uniting with the oxygen of the metallic oxyd to form water, and its azot appearing uncombined in the form of gas. Thus, as M. Fournier has observed, (An. Chim. tom. 2 & 6.) if the black oxyd of manganese is mixed with liquid ammonia, and gentle heat be applied, the oxyd passes to the state of the white oxyd, (which is nearer the metallic state) and an effervescence with disengagement of azotic gas takes place. The red oxyd of mercury, treated in a similar manner, gives the same results, and the metal is left in the state of a black powder, which simple exposure to light and air will convert to globules of running mercury. This affords a ready way of clearing the surface of mercury that has been tarnished and oxidized by acid vapours.

Some of the most difficultly reducible metals, such as manganese or tungsten, are on this account well prepared for reduction by being previously united with ammonia.

The volatile alkali may be made to unite with oils, so as to form ammonical soaps; but this combination is less perfect than the fixed alkali soaps, on account of the impossibility of applying heat to promote union without driving off much of the alkali in the form of gas. The volatile oils are equally soluable in ammonia with the fixed, an example of which is that union of oil of amber with ammonia, which forms eau de luce.

A great variety of vegetable and animal substances are dissolved or decomposed by this alkali, which renders it of the highest importance in the analysis of animal and vegetable matters.

The uses of the volatile alkali are numerous and important.

To the chemist, as a reagent of very extensive utility, it is an indispensible requisite, as there is hardly a single analysis of mineral, vegetable, or animal matter performed (where at all complicated) in which ammonia is not largely employed.

In medicine this alkali is highly valuable, on account of its strong and diffusibly stimulating properties. When taken internally, its first effect is generally upon the throat and fauces, owing to its partial volatilization by the heat of the mouth. Every one is familiar with its use in relieving stings and stings when mixed up the nostrils, though from the great acrimony of the caustic ammonia, the milder form of the carbonated ammonia, or sal volatile is generally preferred. The strong and pungent stimulus which it gives to the system, when applied to the nostrils, renders it also one of the most powerful applications in many of the more serious affections of the vital powers. The pure liquid ammonia is much too acrid to be used by itself, even as an external application, but when mixed with oil it forms a very useful liniment for strains, indolent swellings, and any ccat in which a powerful stimulant is required. Simple agitation with oil will unite the two liquors into an uniform milky faponaceous liquid, in which the sensible properties of the alkali are only blunted and not neutralized. A peculiar use of the liquid ammonia largely diluted with water, and taken internally, is in checking the sadden and dreadful effects produced by the bite of venomous serpents.

Friedly on Air.—Journal de Physique for 1783, 6, and 7.
—Davy's Recherches, &e.

AMMONIAC. In Mythology, an appellation of Juno, to whom the Eleans sacrificed, alluding, perhaps, to Jupiter Ammon.

AMMONIAC, Gum. or, as it is sometimes, though improperly, called, ammoniac, is a concrete, gummy, re-

frous juice, which is said to ooze from a plant of the umbelliferous kind, as may be inferred from the seeds and pieces of such a plant with which it is intermixed. Ammoniacum

is very analogous to Galbanum, and the former, as well as the latter, is probably procured from a species of the Bubon. The feeds that are found among the tears resemble those of anethum or dill, except that they are larger.

Dioscorides says, it is the juice of a kind of feraula, growing in Babary, and that the plant which produces it was called agyphiis. Pliny calls the plant whence it flows metopion, and says the gum took its name from the temple of Jupiter Ammon, in the western part of Egypt, now the kingdom of Barca, near which it grew. At present it is brought here from Turkey, and from the East Indies.

The good ammoneum ought to be in dry drops, white within, yellowish without, easily fusible, resinos, somewhat bitter and nauseous, and of a very sharp taste and smell, somewhat like garlic. The white drops or tears are observed to change to a yellowish or brownish colour, on being exposed for some time to the air. It should not be mixed with any weakne, wood, bone, or sand; this, by the Greeks, was called δακρυα, fragment. The other, which is full of bone or sand, was called ἄκρυα, that is, mixture. It is purified from the seeds, with bones, &c. commonly intermixed with it, by softening or dissolving it in a little boiling water, pressing it, while hot, through a strainer, and then inflicting it to its former condition. For internal use the larger and finer tears, unpurified, are preferable to the common drained gum.

From an ounce of this gum, or in fix days may be dissolved by spirit of wine, or fix films two or three and a half may be dissolved by water. Neumann.

This gum softens by the heat of the fingers, and adheres to them. It is brittle when cold; it is easily melted in an iron spoon; applied to a candle it burns and fumes. The more milky grains are contained in it, so much the more excellent is its quality. If these only be selected it will require no purification.

Some say it served the ancients for incense in their sacrifices. It enters several medicinal compositions, and its principal virtue is that of resolving obstructions, in which intution it is frequently used in asthmas and difficulty of expiratory, in menstrual suppurations, and cachectic indispositions. In obstructions of the brea it is reckoned the most effectual of the aperient gums. It is most commonly taken in the form of pills; the dose is a scruple, or half a dram, every night or oftener; in larger doses, as a dram, it generally loosens the belly. In phthisical cases, where no injury is to be apprehended from a stimulus, this gum may be elegantly combined with oxymel of squills, distilled water, and syrup. Applied externally, it is sup-posed to diffuse hard indolent tumours; and for this purpose it enters into the composition of many plasters. Plasters formed with vinegar of squills, and with wine vinegar, have been employed for curing the fungus of the joints or dropy of the knee, and are said to have proved cffectual. Plasters of this kind applied to the head, and allowed to remain for fix or eight weeks, have removed the tums capitis. Dr. Cullen (Mat. Med. vol. ii. p. 369.) affirms, that he has feldom found the expectorant power of this gum very remarkable, and that the mischief arising from its heating qualities has more than counterbalanced the benefit obtained by its expectorant powers. He adds, that its efficacy in resolving indurated tumours is very doubt-ful, and that he has had no clear proof from experience of its having any such power.

Ammoniacum, triturated with water, diffuses into an emulsion, or milky liquor, lac ammoniaci, and in this form acts rather more powerfully than in the cold one of a pill. Simple penny royal water is common-
A M M

mostly used for this purpose, in such proportion, that four spoons of that, is two ounces, of the solution contain thirty grams of the gum. Some have distilled it in vinegar of spirits, and thus obtained a very powerful but impalpable expectorant. When these pulpy solutions are kept for some time they deposit a considerable quantity of tenacious matter, and become clear. Impregnated they yield an extract of no smell, and of only a weak bitter taste. In dilution no essential oil is obtained, and the distilled water is but slightly impregnated with the flavour of the ammonium.

In this respect ammonium differs remarkably from most of the other deodorant gums, as aspirina, galbanum, and fagapheum, which afford not only a strong distilled water, but an actual oil, containing the concentrated flavour of the gums. Lewis.

**AMMONIAC, falls in Chemistry and the Materia Medica.**

AMMONIACAL preparations, in Pharmacy. There are several pharmaceutical preparations, into which the volatile alkalies, under one form or another, enter as a principal ingredient. Of these the only one in which the alkali is employed in its caustic state is the aqua ammonica pure, (Pharm. Lond.) also called acetic spirit of ammonia, or spirit of ammoniaca with quicklime: (spiritus ammoniacus cum calcis viris), the methods of preparing which have been described under liquid ammoniacum in the preceding article. It may be observed, that though it is called a spirit it only consists of water, impregnated with pure ammonia, through the medium of dilution. The appellation “with quicklime” is added to distinguish it from the simple spirit of sal ammoniacus, which is prepared (from the dilution of muriated ammoniac in both cafes, but) with chalk, and is therefore not caustic, but carbonated, and effervesces with acids.

The several preparations of the Carbonat of Ammonia, employed in medicine, will be mentioned more particularly under that article and HARTSHORN. The principal are the prepared ammoniac, ammoniac preparatum, (Pharm. Lond.) Sal volatile, salt of hartshorn, which is the solid carbonat of ammoniac in its pure state, prepared for the most part by sublimation of some of the neutral ammoniacal salts with chalk.

Aqua ammoniac, (Pharm. Lond.) or spirit of sal ammoniacus, is prepared by distilling muriate of ammoniac, chalk, and water; and is in fact nothing but a solution of carbonat of ammoniac in water, effected by the medium of dilution, and perhaps containing a small portion of the caustic ammoniac, where the chalk is not perfectly mild. Sometimes this liquor is prepared with pearlash, or carbonat of potash instead of chalk. The effect will be the same upon the ammoniacal liquor, only when the pearlash is used, as it is always in a semi-caustic state, it will render the volatile alkali somewhat less carbonated.

Spiritus ammoniacus, (Pharm. Lond.) spiritus fallis ammoniaci dulcis, pure vulgaris. This differs from the preceding in being a real distilled spirit, as proof spirit of wine is the menstruum employed for the alkali instead of water. The term spirit is therefore, in the present London Pharmacopeia, very properly confined to the ammoniacal preparations where spirit of wine is employed; and the term eau or of ammoniac is adopted where this liquid is the solvant for the alkali.

The true spirit of ammoniac is made the basis of several powerful compound preparations, in which either an aromatic oil and water, or a tincture, is united with the alkaline spirit, according to the intention which it is to answer. Of the former kind is the spiritus ammonica comestibulorum, or ammoniac spiritus, prepared by diffusing bergamossemi effuse and oil of cloves in the alkaline spirit (either with or without the help of dilution); of the latter is the spiritus ammoniacus

.. in which a certain quantity of affaictus is dissolved in the spirit. The ammoniacal spirit is likewise made the basis of some tinctures, instead of simple spirit of wine, where the operation of the volatile alkali properly combines with that of the gum or resin dissolved in the tincture. For external applications in this water and the spiritus ammoniacus, and both caustic and effervescent, are employed according to the strength of the remedy required. The caustic solution makes, by much the most rapid and permanent union with oils, whence it is preferred in that delicate preparation, the Eau de Luce.

AMMONITE, or納土石.


The ammonite is a fossil univalve, many chambered shell, of a flattened spiral figure, containing many circumvolutions, which decreases in bulk gradually from the circumference to the centre; all the circumvolutions may be divided by the same horizontal plane, and therefore the whole of the spiral is visible on each of the flattened sides. From its resemblance to a man's horn, or rather to the compressed spiral horn with which the figures of Jupiter Ammon are generally represented, it has derived its common name. The vulgar consider it as a petrified snake; hence its appellation of snakebone, &c. He least reflection, however, ought long ago to have destroyed this error, if men in general were as capable of finding out differences as they are willing to see resemblances. A snake always coils himself up, so as to have his head in the centre of the spiral, and therefore the volume of the spires diminishes as they approach the circumference, whereas in the ammonite precisely the reverse takes place.

Ammonites are found of all intermediate sizes, between those which are scarcely visible to the naked eye, and a speciem in the British Museum, above three feet in diameter, and weighing about one cwt. The number of circumvolutions, however, is by no means according to the size of the shell; there are few perfect specimens which contain less than five, and hardly any that exhibit more than twelve. Of some the external surface is smooth, of others it is rugose, or flattened, or tubed, or toothed. In fact there seems to be included, under the term ammonite, a very large natural family of shells, agreeing in certain essential characters, but remarkably differing in others; not fewer than thirty different kinds have been found in the neighbourhood of Bath. Schuchzer, in his "Natur. historie des Schweizerlandes," enumerates 149 varieties, and Rofius has added to the catalogue nearly 300.

There are three species of fossil shells, which have been occasionally confounded with the ammonite.

The first of these is the nautilis, or fossil nautilus; and although the extremes of the two species are readily discriminated from each other, yet the intermediate varieties of the ammonitiform nautilus, and the nautiliform ammonites may without much impropriety be classified under either species. In general, however, the nautilus has much fewer circumvolutions, and these do not gradually increase in capacity from the centre to the circumference, as is the case in the ammonites; but the exterior volume is rapidly and largely dilated, so as to be of much greater dimensions than that which immediately precedes it.

The spurious ammonite, or umbilicate, in external appearance, has a great resemblance to the real ammonite, but totally differs in its interior structure by not being divided into cells or chambers.

The
AMM

The linnite is another spiral many-chambered shell, but may, without much difficulty, be distinguished from the ammonite, as its volutes are fewer, do not touch each other, and the exterior one approaches nearly to a straight line.

Of all the fossil shells ammonites are perhaps the most numerous and most generally diffused; they are found principally in calcarceous strata, and are the only organized remains that have been met with at very great heights: De Luc has discovered them on Mount Grenier, 7500 feet above the level of the sea: they also occur in marl, flate, indurated clay, and argillaceous sandstone. The internal cavities of the shell are usually filled with calcarceous spar; at other times the whole substance is penetrated with pyrite, and occasionally is met with completely agatized.

The race of animals, of which these are the remains, has probably been long extinct, no naturalist having met with living ammonites more than a few lines in diameter, and even these have been, for the most part, proved to be only nautilus. In the account of the ill-fated voyage of La Perouse is a memoir by Lamanon, describing a living ammonite, four lines in diameter, found in the Florida of a bonnet, caught in the South Sea between the tropics; but this supposed ammonite, from the figure and description, is probably a nautilus; the exterior volute is by much the largest, and the number of circumvolutions is only two and a half. It was, indeed, an opinion of Linnæus, that living ammonites, corresponding to all the fossil varieties, were still existing in the depth of the ocean; hence they have obtained the name of Pelagian shells: this, however, cannot be proved, and is rendered improbable for the following reasons: first, the shell of the ammonite is very thin, whereas those of animals that live at great depths is always thick. Secondly, ammonites are almost always found mixed with turbines, buceina, and other common shells, which, while alive, are now known to inhabit shallow seas, and are daily thrown up on every coast; the living ammonite, therefore, if still in existence, would probably be found in similar situations, and be occasionally thrown upon the shore, together with those shells by which, in a fossil state, it is commonly found to be accompanied.


AMMONITES, in Ancient History, the defendants of Ammon, took possession of the country called by their name, after having driven out the Zamzummas, who were its ancient inhabitants. The precise period at which this expedition took place is not ascertained; nor does history inform us to any great degree concerning the manners and customs of these people. They had kings, and were uncircumcised, (Jer. ii. 25, 26.) and seem to have been principally addicted to husbandry. They, as well as the Moabites, were among the nations whose face or prosperity the Israelites were forbidden to despise. (Deut. xi. 29, 30.) However, neither the one nor the other were to be admitted into the congregation to the tenth generation, because they did not come out to relieve them in the wilderness, and were concerned in hiring Balaam to curse them. Their chief and peculiar deity, in Scripture, called Moloch; and Chemosh was also a god of the Ammonites. Before the Israelites entered Canaan, the Amorites conquered a great part of the country belonging to the Ammonites and Moabites; but it was re-taken by Moses, and divided between the tribes of Gad and Reuben. Before the time of Jephthah, ante Chrill. 1188, the Ammonites engaged as principals in a war, under an anonymous king, against the Israelites. This prince, determining to recover the ancient country of the Ammonites, made a sudden irruption into it, reduced the land, and kept the inhabitants in subjection for 18 years. He afterwards joined Jordan with a design of falling upon the tribes of Judah, Benjamin, and Ephraim. The Israelites refilled the invaders; and assembling at Mizpah, chose Jephthah for their general, and sent an expostulatory message to the king of the Ammonites. (Judge, x. 15.) The king replied, that these lands belonged to the Ammonites, who had been unjustly dispossessed of them by the Israelites when they came out of Egypt, and exhorted Jephthah to restore them peaceably to the lawful owners. Jephthah remonstrated on the injustice of his claim; but finding a war inevitable, he fell upon the Ammonites near Arar, and defeated them with great slaughter. On this occasion the Ammonites loft 20 cities; and thus an end was put, after 18 years bondage, to the tyranny of Ammon over the Israelites beyond Jordan.

In the days of Saul (1 Sam. xi.) ante Chrill. 1075, the old claim of the Ammonites was revived by Nahash their king, and they laid siege to the city of Jabesh. The inhabitants were inclined to acknowledge Nahash as their sovereign; but he would accept their submission only on condition, that every one of them should confess to lose his right eye, and that thus he might fix a lasting reproach on Israel; but from this humiliating and severe requisition they were delivered by Saul, who vanquished and dispersed the army of Nahash. Upon the death of Nahash, David sent ambassadors to his son and successor Hanun, to congratulate him on his accession; but these envoys were treated as spies, and dismissed in a very reproachful manner. 2 Sam. x. This indignity was punished by David with signal rigour. Rabban, the capital of Hanun, and the other cities of Ammon, which refilled the progress of the conqueror, were destroyed and razed to the ground; and the inhabitants were put to death with circumstances of extreme severity. In the reign of Jehoshaphat the Ammonites united with their brethren the Moabites, and the inhabitants of Mount Seir, against this king of Judah; but their hostile attempts were refilled, and they were completely routed. They were afterwards overthrown by Uzziah, king of Judah, and made tributary, 2 Chron. xxvi. 5. But rebelling in the reign of his son Jotham, they were reduced to the necessity of purchasing peace at a very dear rate. After the tribes of Reuben, Gad, and the half tribe of Manasseh were carried into captivity by Tiglath Pileser, ante Chrill. 740, the Ammonites and Moabites took possession of the cities belonging to these tribes, and were reproached for it by Jeremiah. Ch. xxix. 1. Their ambassadors were exhorsted to submit to Nebuchadnezzar, in the typical language of the prophet, and threatened, on their refusal, with captivity and slavery. Ch. xxxvii. 2, 3, 4. The prophet Ezekiel, ch. xxxiv. 5.—10, denounces their entire destruction, and informs them, that God would deliver them up to the people of the east, and that the Ammonites should no more be mentioned among nations; and this punishment they were to suffer for insulting the Israelites on account of their calamities, and the destruction of their temple by the Chaldeans. This punishment is supposed to have been inflicted upon them in the fifth year after the taking of Jerusalem, when Nebuchadnezzar made war against all the people around Judea, A. M. 3420 or 3421, ante Chrill. 583. It is probable that Cyrus granted to the Ammonites and Moabites liberty to return into their own countries, whence they had been removed by Nebuchadnezzar; for they were exposed to the revolutions that were common to the people of Syria and Palestine, and subject, sometimes to the kings of Egypt, and sometimes to the kings of Syria. Polybius (lib. v.) informs us, that Antiochus the Great took Rabbath,
AMMONITIS, in Ancient Geography, the country of the Ammonites. It was a district of Arabia Deserta, extending from south to north to the coast of Paludis. The limits to the well and partly to the north were the river Jabbok, which ran, according to Josephus, between Rabboth-Ammon, or Philadelphia, the capital of Ammonitis, and Gerafa, and fell into the Jordan. They had also the river Arnon on the west, which divided them from the land of Gilead, or the tribe of Gad; on the south they had the Ishmaelites, on the west the deferts of Arabia, and on the north the hills of Gilead and Bashan. The territories of the Ammonites seem, according to the sacred historians, to have been anciently confined by the river Arnon and Jabbok; but their frequent conquests on their neighbours occasioned their boundaries to be in a state of constant fluctuation. Reland. Lib. i. p. 153—154.

AMMONIUS, in Biography and History, was general of Alexander Bala's troops, and accursed by Polybius Philometer of a design to poison him. In his attempt to cleave from Asia, in the disguise of a female drab, he was apprehended and put to death. A. M. 3369, ante Christ. 145.

AMMONIUS, a Peripatetic, was a native of Egypt, and flourished about 150 years before Christ. He was the disciple of Plotinus, and is frequently mentioned by him, without either commendation or reproach. He attempted to extend the authority of Aristotle beyond the limits of his own sect, by blending the Platonic and Stoic doctrine with the Peripatetic. He taught and died at Athens. Suicides. Fabricius. Brucker's Phil. by Entfild, vol. ii. p. 114.

AMMONIUS, Saccus, so called, as it is supposed, from his early occupation as a porter in the harbour of Alexandria, was an eminent Alexandrian philosopher, and flourished about the beginning of the third century. He was born of Christian parents, and was betimes instructed in the clerical school established at Alexandria. Under the Christian preceptors, Athenagoras, Pantanus, and Clemens Alexandrius, by whom this school was conducted, and who united Gentile philosophy with the Christian doctrine, he acquired a strong propensity towards philosophical studies, and became exceedingly defirous of reconciling the different opinions which at that time subsisted among philosophers. To him we must refer the complete constitution of the sect of the Eclectics, which had been first projected by Ptono, a Platonist. Porphyry affirms, that Ammonius passed over to the legal establishment, that is, apostatized to the Pagan religion. Eusebius and Jerome, on the contrary, affirm, that Ammonius continued in the Christian faith to the end of his life. But it is probable, that these Christian fathers refer to another Ammonius, who, in the 16th century, wrote a Harmony of the Gospels, or to some other person of this name, for they refer to the sacred books of Ammonius; whereas, Ammonius Saccus, as his pupil Longinus affirms, wrote nothing. Porphyry's testimony is more worthy of reliance than that of Eusebius, because he was nearer Ammonius Saccus than the Christian father, and he must have derived his information from his master Plotinus, who spent 11 years with Ammonius. Besides, it is not easy to account for the particular felated in this philosopher, without supposing that he renounced the Christian faith. It seems improbable that a Christian would have accepted the chair in a Pagan school, or would have been followed by disciples who waged perpetual war against Christianity. However, it sufficiently appears, that he was well acquainted with the Christian doctrine, and endeavoured to incorporate it into his system.

According to Hierocles, Ammonius was induced to execute the plan of an Eclectic school, by a desire of terminating the contentions which had long distracted the philosophical world; and he believes great praise on the institution of philosophy, which he established for this purpose; or with a view of evincing the harmony that subsisted between the doctrines of Plato and Aristotle in all the great and essential points, and introducing a system free from dispute. Ammonius had many eminent followers, both Pagan and Christian. He taught his select disciples certain sublime doctrines and mystical practices, and was called Sibylus, the heaven-taught philosopher. These mysteries were communicated to them under a solemn injunction of secrecy. Porphyry relates, that Plotinus, with the rest of the disciples of Ammonius, promised not to divulge certain dogmas which they learned in his school, but to lodge them safely in their pure minds. The circumstances accounts for the fact mentioned by Longinus, that he had left nothing in writing. Ammonius probably died about the year 243. Amongst these disciples who were admitted to the knowledge of his mysteries were Herennius, Origenes, Longinus, and Plotinus. The two former violated their promise by divulging the secrets of the school of Ammonius; in consequence of which Plotinus thought himself no longer bound by his promise, and became a public preceptor in Philosophy upon Eclectic principles. Porphyry. Vit. Plotini. Suads. Fabric. Bib. Graec. tom. iv. c. 26, p. 154, &c. Lardner's Works, vol. ii. p. 441. Brucker by Enfield, vol. ii. p. 63, &c. Ammonius, a Christian writer of Alexandria, lived about the year 220, according to Cirec, and though his time is uncertain, has been confounded by him and many other learned men with Ammonius Saccus. Eusebius mentions a person of this name, who was a presbyter of Alexandria, and suffered martyrdom in the Antonian persecution; and we might be apt to think this to have been the writer, if Eusebius had not been of a different mind. St. Jerom speaks of Ammonius as an eloquent and very learned man, who, among many excellent monuments of his genius, composed an elegant work of the content of Moses and Jesus, and invented the evangelical canons, which Eusebius of Caesarea afterwards followed. The former is quite lost; of the latter we are informed by Eusebius, that Ammonius of Alexandria has left us a gospel compoied out of the four with great labour, fubjoining to Matthew's gospel the confonant paffages of the other evangelists; and that he had compoied, in another method, ten canons, which are there subjoined. The evangelical canons, though they are reckoned among the works of Ammonius, may have been probably Eusebius's invention, whilst the harmony of Ammonius's might have suggested the design. Whether this harmony be still extant is a subject
a subject in dispute. Cave and Mill agree in supposing, that it is the larger of the two which we now have in Latin. Mr. Jo. James Wetten will not allow this work to have been composed by Ammonius, but thinks it the production of some writer since Eusebius. Dr. Lardner supposes this work to have been interpolated since it was first composed, and even the form of it to have been altered.

Ammonius, the Grammarian, lived in the fourth century, and, according to Socrates, the ecclesiastical historian, was a pupil of the grammarian Hellenicus of Egypt. He fled from Alexandria in 380, when the heathen temples were destroyed by order of the emperor Theodosius. Phoebus speaks of him as a great admirer of the Greek poets, and an indolent critic in the Greek language; and to him we owe a treatise on Greek synonyms, entitled "Περὶ οἰκονομίας Συμμετρικὴ." "On words of similar and different significations," in the form of a dictionary. It was first published in Venice in 1497, and afterwards at the press of Aldus, as an appendix to a Greek and Latin lexicon. published in folio, at Venice in 1524, at Paris in 1521, at Bâle in 1532, and annexed to Stephens's Theaurus in 1572, and to Scalap's Lexicon. Fabricius Bib. Græc. lib. iv. c. 26. tom. iv. p. 173. Ammonius, a Peripatetic philosopher, was the son of Hermias, flourished at the beginning of the fifth century, and taught at Alexandria under the reign of Anastasius. He was the disciple of Proclus, and the preceptor of Simplicius, Afelepius the Trallian, John Philoponus, and Damascus, by the latter of whom he is represented as superior to the other philosophers of his age, and particularly excelling in mathematical learning. His commentaries upon Aristotle and Porphyry are still extant. His commentary upon Arisotle's book "De Interpretatione," together with a Commentary on the Categories, was printed by Aldus in folio, at Venice, in 1503. An age out from this work on Providence and the foreknowledge of God, and free will of man, was published by Grotius, at Paris, in 1648, and at Amsterdam, in the third volume of his theological works, in 1679. His Commentary "In Hæcogen Porphyrii de quinque Præceptis" was printed by Aldus, at Venice, in 1500, and has passed through several editions. Fabric. Bib. Græc. vol. iv. lib. iv. cap. 26. p. 161.

Ammonius, Alexanderinus, an ancient sargone of Alexandria, called also Lithotomus, from having invented an instrument, a kind of file or saw, for breaking or dividing bones generated in the bladder, and which are too large to pass through the natural passages in their entire size. With what facility this art, (which is obscurely hinted at by Celsus) was practised, we are not acquainted. It has long since been lost, and the title Lithotomus, given to perfons cutting into the bladder, and extracting the bones through the wound. But those, Le Clerc observes, should rather be called Cytoplomiths. Hillebr. Bibl. Chirurg. Ammonius, Andrew, a native of Lucena, who settled in England in the beginning of the 17th century, and lived for some time in the house of Sir Thomas More, and afterwards in St. Thomas's college, not being in circumstances that allowed him a house of his own. At length he was appointed secretary to Henry VIII. and honoured by Pope Leo X. with a public character at the court of this prince; but his views of higher and more lucrative advancement were disappointed in middle age by his death, occasioned by the sweating sickness in 1517. He was distinguished by the intimate friendship and frequent correspondence that subsisted between him and Erasmus. Erasmus, in the humorous advice which he gives him as to the most effectual method of advancing his fortune, desired to satirize the usual methods that are adopted for this purpose. "In the first place," says he, "throw off all sense of shame; thrust yourself into every one's business, and show out whomsoever you can; neither love nor hate any one; measure everything by your own advantage; let this be the scope and drift of all your actions. Give nothing but what is to be returned with usury, and be complaisant to every body. Have always two things to your bow. Reign that you are solicited by many from abroad, and get every thing for ready for your departure. Shew letters inviting you elsewhere, with great promises." Erasms. Epiph. xiiii. lib. 8. p. 474. Erasmus (Epil. v. lib. 23.) thus laments his death. "How many of my companions have I lost! in the first place, Andrew Ammonius of Lucena: Good God! what a sprightly genius! of what a faithful memory! how noble was his soul! how free from envy and every meanness! when his own qualifications, and the applause of princes had opened him a way to the greatest affairs, he was suddenly snatched off before he was forty- five years of age, the loss of whom I cannot but lament, as often as I reflect how delightfully I was with his acquaintance!" What he writes to Erasmus in one of his letters, viz., that the burning for so many heretics had raised the price of wood, must be regarded as an hyperbole. Ammonius wrote some Latin poetical pieces. Gen. Dict.

AMMOSCHISTA, in Nature History, a genus of flies of a laminated structure, and splitting only horizontally, or into flat plates. The genus aumoschista are coarse, hard, and rough flies, of a very hoarse texture, and appearing something porous. They are considerably heavy, and composed of a large, coarse, and obtusely angular grit, surrounded, and in part held together, by a hoarse earthy spar. They are very soft, and friable in the mass, but much more so when reduced to small pieces. They make a violent effervescence with aqua fortis, and will not easily strike fire with flint.

The species of aumoschista are fix.

AMMUNITION, in general, signifies all sorts of war-like flies and provision, more especially powder and ball. The word is ammunis, which, according to Du Cange, was used in the corrupt state of that language for justissimum. Ammunition for small arms, in the British service, is generally packed in half hulks or kegs, each containing 1000 muskets or 1500 carbine cartridges. An ammunition wagon will carry 20 of these kegs or barrels, and an ammunition cart 12 of them. The cartouch boxes of the infantry are made of so many different plates and sizes, that it is impossible to say exactly what ammunition they will contain; but most of them can carry 60 rounds. See Cartridge. The French pack all their ammunition in wagons without either boxes or barrels, by means of partitions of wood. Their 12-pr. wagons will contain 14,000 musket cartridges, and their 4-pr. waggon 57 only 12,000 each.

Ammunition, or gun-powder, may be prohibited to be exported at the king's pleasure, by 12 Car. ii. cap. 4. fe&c. 13. By 1 Jac. ii. cap. 3. fe&c. 2. ammunition, arms, utensils of war, or gun-powder, imported without licence from his Majesty, are to be forfeited with treble the value. Such licence obtained, except for the furnishing of his Majesty's public stores, is to be void, and the offender to incur a prenominy, and be disabled to hold any office from the crown. Whoever is curious to know the quantity of ammunition necessary for the siege of a place, may consult the chevalier de St. Julian's treatise, De l'art de faire des mines, and the quantity requisite for the defence of a place, will be found in Sireux de St. Remy's Memoires d'Artillerie. See Artillery.

Ammunition-bread, flies, &c. what is provided for, and distributed to, the soldiers of an army or garrison.
Such an officer has so many rations of ammunition, bread, &c. 

*AMMUNITION CERT*, a two-wheel carriage with shafts; the sides of which, as well as the fore and hind parts, are inclosed with boards.

*AMMUNITION WAGON*, is generally a four-wheel carriage with shafts; the sides are railed in with rails and raves, and lined with wicker work, so as to carry bread, and all sorts of tools.

*AMNA*, in Physical Writers, denotes the water found in limy soils, and which is consequently tinged with a whitish colour, as in many places of England.

In this sense Paracelsus speaks of the medical virtues and uses of *aman*.

*AMNESIA*, in Medicine, loss of memory. It is sometimes a consequence of febrile diseases, generally receding as the patient gains his strength.

When it is the consequence of old age it can hardly be expected to be cured.

*AMNESY*, or Amnesia, from α, not, and ἀμνής, I remember; a kind of general pardon, which a prince grants to his subjects, by a treaty or edict, wherein he declares, that he forgets and annuls all that is past, and promises not to make any farther inquiry into the same.

The word is ἀμνής, ἀμνιᾶς; which was the name of an ancient law of this kind, passed by Thrasybulus upon the expulsion of the thirty tyrants out of Athens. Andocides, an Athenian orator, whose life is written by Pherarch, and of whom we have an edition of the year 1575, gives us, in his Oration upon Mysteries, a formula of the amnesia, and the oaths taken thereupon.

Amnesties are usually practised upon reconciliations of the sovereign with his people, after rebellions, general defections, &c.

Amnesty is either general and unlimited, or particular and restrained, though most commonly universal, without condition or exceptions; such as that which passed in Germany, at the peace of Osnaburgh, in the year 1648.

Amnesty, in a more limited sense, denotes a pardon granted by a prince to his rebellious subjects, usually with some exceptions; such was that granted by king Charles II. at his restoration.

Amnesty also, in a military sense, signifies the pardon granted by a sovereign to deferrers, on condition of their rejoining their regiments.

*AMNIAS*, in Ancient Geography, a river of Phaphagonia, that roes in the country called Domainis, north west of Germanieopolis, and discharged itself into the gulf of Amicus.

*AMNICA*, in Conchology, a species of *Tellina*. Shell somewhat heart-shaped and transfervely grooved with an obtuse protuberance. Limneus. This is an European shell, and inhabits pools and ditches; it is less globose than tellina cornea, but about the same size. Infuse blue, shining; out side whitish or yellow brown, with one or two blackish ribs. Young ones entirely white andpellucid.

*AMNIMODAR*, in Astrology, the planet that rectifies a geniture, or rather a method of rectifying a nativity, and finding the precise degree in the horizon at the time of an infant's birth, from the condition of the planet, which had the rule in the last preceding conjunction, or opposition of the luminaries. Vital. Lex. Math.

*AMNISOS*, or Amision, in Anatomy, the innermost membrand of the ovum, which contains the fatus and the waters.—The word seems to be derived from ἀμνός, a lamb; q. d. pellis agnia, lamb's skin. See Generation.

*AMNISOS*, liquor of the, chemical properties of. Although the analysis of vegetable and animal substances is as yet less satisfactory than that of inorganic matter, a multitude of improvements have, nevertheless, been introduced of late years into this branch of the science for which we are principally indebted to the French philosophers, Vauquelin, Berthollet, and Fourcroy, by abolishing the old method of analysis by fire, according to which all animal substances afforded the same results, and introducing in its stead the use of the simpler method, have been enabled to discover many peculiar products of animalization. According to the ancient mode, in which Neumann was so long and so fruitlessly employed, of destructive distillation, any animal matter was made to yield first an impure, faint-smelling phlogon, then an impure ammoniacal oil, after which a portion of concrete salt was sublimed, and there remained in the retort a spungy coal of difficult incineration, which, by burning in an open fire, was reduced into a white ash or caput mortuum. If this had continued to be the way of the alyth, we should have contented ourselves with giving an intimation of one as a specimen of the whole; but since a better method has been found out, it will be right to particularize, in their proper places, most of the modern analyses and experiments on animal substances, as, if not quite satisfactory, they are at least well deserving of mention, in a work like the present, and have already been applied to explain the rationale, and improve the practice of some of the most difficult and important among the arts and manufactures.

The liquor of the aminios is a fluid in which all the young of the mammalia are inclosed previously to their birth; and chemistry is indebted to Vauquelin and Buiwiva for an examination of this secretion, as afforded by the human female and the cow.

The first of these liquors presented the following properties. It has a mild faint odour, like that of all the white or colourless animal fluids. To the taste it is slightly saline. Its colour is a dilute white, owing to its containing some particles of a cæsous matter; by filtration, however, it becomes perfectly transparent. Its specific gravity is 1.005. By agitation it froths considerably. On being heated it acquires a semipumice like that of milk with a large proportion of water, at the same time a freedom is developed like that of boiled white of egg. It decidedly changes the colour of tinture of violets to green, and yet finely redens that of tournefol. Pottah occasions a flocculent precipitate, resoluble by a weak acid. The acids appear to have no other effect than that of clarifying it. Alcohol throws down a light precipitate, which, when dry, becomes brittle and transparent like glue. With infusion of gall-nut it yields a very copious brown precipitate. Nitrat of silver causes a white precipitate insoluble in nitric acid.

Hence this fluid appears to contain albuminous matter, similar to that of the blood; a mutistic salt, probably mutuated soda; and a small quantity of free or carbonated alkali.

When evaporated to dryness it leaves a residue no greater than 0.12 of the mafs. This, by lixiviation and evaporation, affords crystals of common salt and carbonated soda, and the remaining animal matter, on being burnt, exhales a fetid ammoniacal odour like horn, and leaves a few white ashes, composed of carbonated soda, and phosphat, and carbonat of lime.

The aminiotic liquor of the cow remarkably differs from the preceding.

It is of a brownish red colour; an acid bitterish taste; an odour approaching to that of vegetable extract; its specific gravity is 1.058; and it has a viscid consistence, like a solution of gum.
It reddens very decidedly the tincture of tournesol. It gives an abundant precipitate with urate of barytes; and, when treated with alcohol, a thick, clear liquid is formed, consisting of redish matter.

When submitted to evaporation a thick fume rises to the surface, and after being reduced to a quarter of its bulk, a number of long, thin needle-like crysalts are produced as the liquor cools; these being all deposited, and the matter further brought by evaporation to the consistence of honey, a fresh production of crysalts takes place; these, however, differ in form from the preceding, and are sulphate of soda.

The extractive matter being separated from the acid crysalts, and from the water which held them both in solution, by means of alcohol, affumes the appearance of a compact, adhesive cement; in colour reddish brown, and of a peculiar indefinable flavour. It is readily soluble in water, to which it gives a viscosity, and the property of frothing by agitation; in this respect it resembles animal mucilage, but differs from this substance in not forming a jelly, nor combining with Tannin. When exposed to the fire, it swells greatly, and gives out at first an odour of burnt mucilage, then of an empyreumatic ammoniacal oil, and finishes with the difengagement of prussic acid. The coaly matter which it yields is bulky, eaily incinerated, and affords a light white ash, composed of phosphated magnesia, with a white tint of phosphat of lime.

The concrete needle-shaped crysalts are brilliant, transparent, lightly red, reddening the tincture of tournesol. They are scarcely soluble in cold water, but readily so in boiling water, from which by cooling they are deposited in long slender needles. This acid combines without difficulty with the caustic alkalis, forming a very soluble salt, but will not decompose the carbonated alkalis, except affixed by heat. It is separated from its alkaline combinations by the mineral acids, in form of a white crystalline powder. It produces no change in the aqueous solution of the alkaline earths, nor does it alter the nitrates of silver, lead, or mercury. By heat it is destroyed, exhaling an ammoniacal odour, mixed with that of prussic acid, and leaves a fputy coal. It is different in its properties from all the known acids, and may be received into the modern nomenclature by the name of the ammoniacic acid. Annales de Chimie, vol. xxxiii. p. 269.

AMNISUS, in Ancient Geography, a small river in the island of Crete, mentioned by Callimachus, Apollonius, and Suidas.

AMNISUS, a port in Crete, probably at the mouth of the above-mentioned river, in which the Cretans pretended, according to Paufanius, that Lucina was born, and where this goddess had a temple and was worshipped. Strabo says, that Amnisus was the port of the town of Causus.

AMNITAE, an ancient people, who seem to have been the fame with the SANNITAE of Strabo, whom he places in a small island to the west of Gaul, and near the mouth of the river Loire. According to him, the women were a fort of Amazons, who allowed intercourse with men only once a year, and who offered sacrifices to Bacchus.

AMNON, a river of Arabia Felix, according to Ptolemy.

AMODOCI, one of the mountains which encompassed the European Sarmatians, according to Ptolemy.

AMOENUS, in Entomology, a species of CURCULIO, described by Fabricius as a native of New Holland; it is black with two white or white spots on the thorax, and live on the wing-cases.

AMOEBAEUM, in the Ancient Poetry, denotes a kind of poem, or composition, wherein two parties speak alternately in the same name of verbs, but so as that he who answers either goes beyond or contradicts the other.

The word is σφίδλην, signifying mutual or alternate. Hence also we meet with σφίδλην αμβικος. Such, e. g., are those of Pliny and Trajan.

AMOEBARI, a kind of ancient Spanish soldier, in great repute for their bravery. These are otherwise denominated by some writers, almaguaeviri.

AMOELAUS, in Ichthyology, a name of a peculiar kind of flat fish, somewhat resembling the sole, and called in some parts of England, the liveret. It is of a very slender, pellucid, and white body, never exceeds three inches in length, and is very smooth to the touch, being covered only with a number of very thin scales, which fall off on touching it. Its flesh is very finely textured, and requires very little dressing.

AMOK, a term signifying slaughter, and used as the exclamation of the Bokanese slaves in the island of Batavia. These slaves, who are brought from the island of Celebes, when irritated by ill usage, are exceedingly dangerous; as in this case they intoxicate themselves with opium, fall into the street, and murder every person whom they happen to meet. This is called running amok, this word being the cry of these desperate wretches. Some have supposed, that from this practice Steele borrowed the idea of the moblock club, mentioned in the Spectator.

AMOL, or AMU, in Geography, a town of Asia, in the country of the Ulbeeks, in Independent Tartary, seated on the Ghion, 115 miles west of Samarcand. N. lat. 39° 30', E. long. 64° 35'.

AMOMI, is used, by the Dutch traders, for what we otherwise call Jamaica pepper.

AMOUM, in Botany, a genus of the monandra monogynia class and order, of the natural order of feßilinे and ina of Jussieu, the characters of which are that the calyx is a perianthium one-leaved, cylindraceous and unequally trilled; the corolla is monopetalous and funnel-shaped, tube cylindraceous, border three-parted, parts oblong and spreading; the stamen two-leaved or two-lipped, lower lip inferted under the upper segment of the corolla, spreading, almost erect, entire or three-lobed; the staminal have no filament, except the upper lip of the stamary, smaller than the lower, and opposite to it, acuminate or three-lobed the tip; the middle or at the end of which grows longitudinally a large oblong anther, geminate, or divided by a longitudinal furrow into two which are one-valved; the pistillum has an inferior, oblong germ, stye filiform, drawn through the future of the antler, stigma turbinate, obtuse and ciliate; the pericarpium a fleshy capsule, ovate, three-cornered three-celled, and three-valved; the seeds are several, covered with a sort of arill aril. Obf. The in- florescence is in a spike, on a distinct spike. Willdenow enumerates 11, Martyn 12, and Gmelin, in his edition of Linneus, 20 species. 1. A. zinziber or zinziber, zinziber major of Rumph. zinziber of Bauhin, intific of Rheed, sciffner sister of Wild. narrow-leaved ginger, with a middle-sized (naked, G. and W. ) scape, ovate spike, (ovate scales, W.) and leaves linear-lanceolate, (ciliate at the tip, W.) The root is creeping by palmate, compressed, fleshy tubers, which become fbruous with age; the culm annual, two feet high, fingle, folid, and upright; leaves half a foot long, smooth, alternate, on short, embracing petioles; the scape separate, eight inches high, thick, round, fcaly, usually without leaves; the spike composed of large ovate, subfucibinate, coloured scale, half closing the flowers; calyx a small double, fpathie, corolla yellow with green with a long slender tube, the segments of the body conical, and nearly equal; stamary reddish brown, ovate, petal-shaped, winged on each side at the base, and somewhat shorter than the corolla; filament, or upper lip of the nec-
very filiform, placed on the corolla and shorter; anther ovate, clavate longitudinally, embracing the filiform style; stigma cylindrical, ciliate at the tip; capsule smooth, containing many oblong seeds. This species, cultivated here by Miller, in 1731, and flowering in September, is a native of the East Indies, and other countries of Asia, and is much cultivated there and in the West Indies. The dried roots furnish a considerable article of commerce from our West India islands; they are of great use in the kitchen and in medicine, and preferred green as a sweet-meat, are preferable to every other root. For the diastatic and medicinal use of ginger, see GINGER. 2. A. zeylanica, zygner haricifolium fylestre of Herr. lampium of Rumph. kentuckyans of Rheed, block iner of B. Winslow. 9. or zerumbet, with a naked scape, oblong, obtuse spike, pubescent scales, and leaves ovate and smooth at the margin. According to Murray, the A. zygner' more aptly distinguished from the A. zerumbet, by its narrow leaves, called enigma by Jacquin, than by the ovate spike, and the latter is more truly distinguished from the former by its broad leaves than by its oblong oblong spike, for the A. zerumbet has equally an ovate spike. This species has the tubers of the root much larger, round, twisted, thick, branched, horizontal, pale-coloured, with little smell and a bitterish taste, but not an ardent flavour like true ginger: culm four feet high, perennial, straight, round and solid like the preceding species; leaves lanceolate, large, smooth, petioled, embracing and ascending obliquely: the scape a foot high, dillint, thick, fealy and red; spike large, round, clofe, one-flowered, red scales; calyx a single acute spathe; corolla pale, with a long tube;nectary of the same colour, petal-shaped, very blunt, bifid, fastened to the throat of the corolla; filament flat, subulate, bent in, adhering to the hinder segment of the corolla, and nearly equal to it; another oblong, fastened to the middle of the filament; cultivated at Hampton Court, in 1698, and flowering with us from September to November, when the flakes perish like those of the true ginger; a native of the East Indies, Cochinchina, &c. and also in Otathea, and the other Society isles. This is used externally in the East in cataplasms and fomentations, but not internally, as spirit or medicine; though Gancis says, that it makes a better preserve with sugar than the other. 3. A. zedoaria, with a naked scape, loose cylindrical truncated spike, and ovate acuminate leaves. This is the A. latumine, with larger ovate acuminate leaves, and scape terminated by an oblong spike of La Mark, zedoaria longa of Bahu, zedoaria officinarum of Petr. zedoaria feua Indorum tamog of Cam. loz. kua of Rheed, zerumbem tommon of Rumph. and zittering iner of W. This species grows in Malabar, and other parts of the East Indies. The flowers have an agreeable smell; the root has an acid pungent, aromatic, and somewhat bitterish taste; its smell is strong, but pleasant; dried and reduced to powder it loses its acid taste, and it is formed into bread by the Indians in a time of scarcity. See ZEDOARY. 4. A. fylestre, paco cercos of Pifio, Brazil. zingiger fylestre major, &c. of Sloane, wild iner of W. great wild ginger, with a naked scape, spike elongated, with oblong ventricose bracts, and leaves broad-lanceolate. This does not differ from the second species, except that the floral rifes eight or nine feet high, that it has much larger leaves, and that, instead of the flowers and fruits being on the end of the same stalk, they are on another about three feet high, immediately springing from the root. It is a native of the wood of Jamaica; the root is warm and stimulates gently, and may properly administer as a stimulant and aperient. 5. A. minor, daasoka vulgo miaga of Kempter, japonifer iner of W. Japanaee ginger, with a very short scape, ovate capsule, and uniform acute leaves. This approaches very near to the A. cardamonum of Java, in having the spike of flowers distinct from the leaves, and ovate capsules, but differs from it in having the scape more falcate and shorter, not oblong and imbricate, the leaves uniform, and merely acute, whereas in the other they are obovate-elliptic, with a long bristle at the tip; they are also much shorter, not only about a span in length, but in the other they are often four feet long. In the leaves it much resembles A. zimber and A. zerumbet; but the spike of flowers is radial, with scarcely any scape. It is a native of Japan, where it flowers in September. 6. A. umbellatum, umbellate, Al. Madagascaricum, major, &c. of La Mark, schramhblattiger iner of W. narrow-leaved ginger, with a naked, very short scape, capitated spike, and linear-lanceolate leaves. The stem is eight or ten feet high, the pedal leaves are very narrow and linear-lanceolate, the scape very short, the spike globose, and tew-flowered, and the capsules ovate. It is a native of the marshes of the island of Madagascar. The seeds have a pleasant aromatic taste, and their smell is agreeable; and hence, says Geoffroy, some have called them grains of paradise; a denomination that more properly belongs to another species. 7. A. cardamonum, cardamomum, with a very simple and short scape, and alternate, loofe bracts, or with the spike radical, fleshy and obovate, and leaves obovate-elliptic and cuspidate, W. This species has thick fleshy roots, resembling those of the large flag iris, which in the Spring send forth many green red-like flanks, that rise to the height of seven or eight feet, garnished with very long narrow leaves, alternate and embracing; the flakes decay in Autumn, and new ones arise from the roots in Spring; the roots thrive and increase, but it has not yet produced flowers in England. In Malabar cardamom is an object of considerable commerce. The Indians also themselves make great use of it, mixing the seeds with their bread, under a notion that it facilitates digestion. See CARDAMOM. 8. A. willoinum of Louvre, globba cripta rubra of Rumphius, rather iner of W. with short righting scape, linear bracteis and villose fruit, or with very short, vagninated scape, roundish spike, and bractes lanceolate and longer than the flower. The smell of the whole plant is aromatic, mild, with a small degree of sharpness, the taste of the fruit, when fresh, sweeteat and pleasant. It is a native of the mountains of Cochinchina; the seeds are much valued by the Chinese, and used medicinally in China. 9. A. medium of Louvre, with spike cauline, branched; and fruit oblong, and broken, without a valve. In Gmelin's Linnaeus, A. medium is characterized as having an oblong three-cornered pyramidal coriaceous capsule and three valves. This species is a native of China, in the province of Yunnan, to the west of Canton. The seeds are used in agues, for culinary purposes, and for increasing the strength of odours in general. 10. A. minor, with a sub-globose, three-furrowed, coriaceous, valvelles capsule. Gmelin. 11. A. globifera of Louvre, with spike cauline, branched, and fruit globose, with an even surface; a native of the mountains of China and Cochinchina, and used in both countries medicinally, in disorders of the bowels, &c. 12. A. biculsum of Louvre, tijane-koa of Rheed, paco-ceilings of Maregrave and Pifio, with spike cauline, simple, rosetting, and fruit roundish and fimbriate; or with spikes foliose and spikèd, under side of the leaves fimbriate, and large flowers of a yellowish white colour; a native of Cochinchina, Malabar, and of Brazil, in woods. La Mark suggests that this species is the costus arboles of Linnaeus. 13. A. echinatum, ammonum 2. of Koenig, globba cripta viridis of Rumphius, flaccidier iner of W. with spike radical, sefili and subglobose, and capsules furrowed, echinated and globose;
A MO
A MO

globose; a native of the thick woods of India. 14. A. ripens of Somnerat, lectarii 1, of Rhode, enef of Herm. kriechender ingewer of W. with ramose decumbent scapes, and lanceolate leaves, W. or procumbent scapes, racemose flowers in the base of the spathes, and leaves lanceolate and acuminate on both sides; a native of the mountains of Malabar. 15. A. graminis paradoxi, grains of paradise, lectarii 2, of Rhode, paradies ingwer of W. with scape branching and very short. This species is little known. It is a native of Guinea, and of the Islands of Ceylon and Madagascar, and was introduced into Few Garden, in 1735, by Lee and Kennedy. See Grains of paradise. 16. A. galanga, MARANTA GALEA of Linnaeus, galanga of Rumphius, galangale, with cauline, erect spikes, subfloridious spathes, and capsule three-cornered-ovate, and smooth. The galangale has an horizontal, creeping root, composed of roundish, twilit, knotty tubers; culm perennial, upright, smooth and fix feet high, leaves ovate, lanceolate, narrow, smooth, upright, length, on embracing petioles, spike oblong; perianth inferior tubuliform, and blunting trifid; corolla superior, yellowish white, segments oblong-ovate, concave and nearly equal; ovary petal-shaped, roundish, emarginate, nearly equal to the segments of the corolla; filament linear, thick, green, grooved longitudinally, longer than the corolla; anther oblong, oblong, embracing a style longer than itself; stigma thick, emarginate; seeds roundish; the smell of the whole plant is aromatic, and it has a biting taste. Linnaeus has made the galangale a species of maranta, but Professor Martyn observes, that the corolla is not nugent, nor five-cleft, nor has two segments spreading, but all the segments, which are three in number, are nearly the same in size and figure. It is properly a species of amomum, as Bergius has made it. It is a native of China and Cochinchina, and is cultivated in both countries. The root and seeds are used there medicinally. See Galangale. 17. A. arboresum of Loureiro, with stem arboreous and calyce fruit. This is a tree about 10 feet in height, with many twilit, spreading branches. It has scarcely any taste or smell, and its use is unknown; the wood is very light, and not even fit for the fire; a native of the island of Sumatra, in a wood, on the easterly soil. 18. A. curcumum of Jacquin, with a scape, having loose spathes from the centre of the leaves. The limb of the corolla is fexfidi. Gmelin. See Curcuma. 19. A. globosa of Koenig, and Rumphius, with stalks solitary, very short scapes, ovate spathes, and leaves alternate, petiolated, bifaried, oblong and acuminate. Gmelin. 20. A. littorale of Koenig, with very short squamule scapes, ovate spathes, very numerous stalks, and leaves nodding at the apices. Gmelin. 21. A. Koenigii, with short scapes, corded spathes, and leaves elongated at the apex and twilit. Gmelin. 22. A. uliginosum of Koenig, with scapes erect-curved, ovate spathes, fingle flowers, with double bracts, and fstellfe leaves. Gmelin. 23. A. jasminum of Koenig, with solitary scapes, ovate spikes, imbricated bracts, and leaves subpetiolated and oblong. Gmelin. 24. A. sepalierrum of Koenig, with solitary scapes, ovated spikes, imbricated bracts, and leaves subpetiolated and oblong. Gmelin. 25. A. kenurus of Koenig, with short scapes, erect and oblong spikes, adpressed bracts, and petiolated leaves. 26. A. nigra of Gaertner, with a berry ovate-globose and fingle-celled, the bace of the corolla funnel-shaped and coronated. Gmelin. Of the several species above-mentioned, the 1st, 2nd, 4th, 7th, 8th, 9th, 11th, 12th, 15th, 16th, 17th, are mentioned and described by Professor Martyn. As to their propagation and culture, he observes, that they are tender, and require a warm floor to preserve them in this country. They are easily propagated by parting their roots, which should be done in the Spring, before they put out new shoots. In parting the roots, they must not be divided into small pieces, especially if they are designed to have flowers, nor should they be planted in very large pots. They thrive best in a light rich earth, such as that of the kitchen garden; and with this the pots should be filled within two inches of the top, and the roots should be placed in the middle of the pots, with their crowns upwards, and the pots should then be filled with the same earth; they should then be plunged into a hot-bed of summer's buds, and sparingly watered, till their stalks appear above ground, when they will admit of more moisture, especially in the Summer months; but in Autumn the watering must not be frequent nor plentiful, and during Winter very sparing. The pots must compactly remain plunged in the tan-bed, for if they are taken out and placed on shelves in the flower, their flowers often shrink, and thus their roots decay. By this management these plants have greatly multiplied, and the common ginger has produced roots, weighing five or six ounces; but the others have been near a pound weight.

In the Weel Indies the ginger thrives best in a rich cool soil; in a more clayey soil the root shrinks less in fielding. The land laid out for the culture of it is first well cleared and hoed, and then lightly trenched, and planted in March or April; it flowers about September; and when the stalks are wholly withered, the roots are fit to be taken up, which is generally done in January and February. Browne cited by Martyn.

Anomum. See Alpinia, Costus, Myrrhus, and Sisone.
Anomum Curcumum. See Curcuma.
Anomum Plunii. See Solarium.
Anomum, in the Materia Medica, a small and rich aromatic fruit, growing in branches like grapes, valued highly for its medicinal virtues. It is commonly clasped among the feeds.

The commentators on Pitsy and Dioecrates, have never been able to agree upon the ancient amomum, the generality of them seek it in fruits different from their. Some will have the roe of Jericho pass for it.—F. Camelli is positive he has discovered the real amomum of Dioecrates, and that it is the jugus or birca, or cherry, growing in the Philippine islands; the grains or berries whereby are worn by the natives about their necks, both on account of their agreeable odour, and of their supposed virtue in preserving from infection, curing the sting of the scolopendra, &c. Phil. Trans. No 248.

Scaliger is confident, that the amomum of the ancients was not a fruit, but the wood itself, which bore some resemblance to a bunch of grapes, and was particularly used in embalming of bodies, and hence, says he, the term Mummy was given to the bodies of Egyptians, embalmed with it. On this account, likewise, all medicines and unguents used in the embalming and preserving of dead bodies, were called amomia.

The ancient amomum was of divers kinds; but the Armenian was most esteemed. It was a hater, drier, and astringent; used as a narcotic to appease pain, cure poisonous bites, inflammation of the eyes, &c.

The true amomum of the ancients resembles the muvat grape, and grows like it, in clusters; it is about the bigness of a large chest-pea, or middling grape, round, membranous, and divided into three cells, which contain several brown angular seeds; the fruit, on being opened, appears to contain three of them. Ten or 12 of these capsules stand together, without pedicels, upon a woody stalk, about an inch long; each single capsule is surrounded with six leaves, set in form of a star; and the part of the stalk, void of fruit, is clothed with leafy scales; of a very strong aromatic taste and smell; the taste is warm and pungent, approaching to that of camphor, and the smell is quick, penetrating, and
and fragrant, resembling that of lavender, but more agreeable. In distillation they yield a large portion of a subtle yellow oil; the bulbs gave the same kind of flavour in a lower degree. These bulbs have long been a stranger to this country.

This fruit was brought from the East Indies; and makes part of the composition of Venice treacle: but the seeds of the amomum vulgare have been used instead of it; and cloves have been also employed as a succedaneum to it.

The modern amomum, used in the shops, under the denomination of amomum vulgare, or amomum officinarum, appears to be the seed of the fison or sum of the ancients, answering to what in English we call hard-baked paste.

It is esteemed a powerful diuretic, and good in nephritic cases. It is also commended as an aperient in general, and prescribed in obstructions of the liver and spleen, and in supplicative affections. The people in some parts of England bruise the seeds, and give them in warm ale, in colics; but those of caraway, or anise, are better. Lewis. See Sisinnium.

AMON, in Geography, a river on the coast of Guiana, well of Arwacas bay, is deep and navigable far into the country, and capable of containing a large fleet. It falls into the ocean about N. lat. 6°, and W. long. 5° 50'.

Amox, a river of Italy, which runs into the Adriatic, about three miles south of the Po.

AMONOSUCK, the Indian name of two rivers of America, in New Hampshire; the one called Upper Amonosuck, rises near the north end of the White hills, runs northerly about 15 miles to a carrying place of about three miles to Amadoggin river, thence it pursues the direction of southwest and well nearly 18 miles, and discharges itself into the Connecticut at Northumberland, near the Upper Coos; the other, called Great or Lower Amonosuck, rises on the west side of the White mountains, and falls into the Connecticut just above the town of Haverhill, in Lower Coos, by a mouth 100 yards wide. About two miles from its mouth it receives Wild Amonosuck, 40 yards wide, from Franconia and Lincoln mountains. This last river is subject to very sudden and impetuous floods.

AMONTONS, William, in Biography, an ingenious experimental philosopher, was the son of a lawyer, who, having moved from Normandy to Paris, and born in 1663. In very early life he was feized with a deafness, which deprived him in a great degree of the pleasures of social intercourse, and led him, for his relief and amusement, to apply with peculiar attention to the study of geometry and mechanics. From these studies he derived so much satisfaction, that he ceased to regret his defect of hearing as an evil, and declined, it is said, seeking any remedy. He also acquired the arts of designing, land-surveying, and building; and extended his researches to the sublime laws by which the universe is governed. He likewise directed particular attention to the nature and construction of barometers, thermometers, and hygrometers; and in 1687 he presented a new hygroscope to the royal academy of sciences, which was very much approved. In 1695 he published a book, in French, entitled, "Observations and Experiments concerning the Construction of a new Hour-glass, and concerning Barometers, Thermometers, and Hygrometers."

To the royal academy, of which he was a member in 1699, he read his "New Theory of Friction," by which he has admirably elucidated an important part of mechanics. He also discovered a method of conveying intelligence to a great distance, in a short interval of time, by means of signals, from one person to another, placed at the greatest intervals from which they could be seen with telescopes; somewhat in the manner of our modern telegraphs. He had a happy talent in devising and executing experiments; and he communicated a great number of observations on the various subjects of air, action of fire, barometers, thermometers, hygrometers, friction, machines, heat, cold, rarefaction, pumps, &c. to the royal academy, which are contained in the volumes of its memoirs, for 1699, 1699, 1702, 1703, 1704, and 1705. His character for integrity, modesty and candour, was no less distinguished than his philosophical genius. His elegy, by M. Fontenelle, is printed in the volume of the Memoirs of the Academy for 1705. In October 1705, an inflammation of the bowels occasioned his death at the age of only 42 years. Gen. Dict.

AMOOR, in Geography, a town of Hindostan, in the county of Guzerat, 51 miles north of Scurat, and 58 south of Ahmedabad.

AMOOR. See AMUR.

AMOPHILA, in Entomology, a new genus propounded by the Rev. Mr. Kirby for a new genus of hymenopterous insects, in the Transactions of the Linnaean Society, vol. iv. The species of this genus are vulgaris, hirufata, affinis, and argentea; the two first are described insects, vulgaris being sphex vulgare of Linn. and Donov. Brit. inf. and hirufata, sphex arenaria of Linn. and Fabr. The two others belong to the genus of spheges in the Linnaean arrangement by Gmelin also. See Sphex.

The essential character of Mr. Kirby's new genus Amopil
ia is, beak conic, inflected, concealing a bident, retractable, tubular tongue. Jaws forcipate, three teeth at the tip; antennae filiform in either sex, with about fourteen articulations; eyes oval; wings flat; sting pungent, and concealed within the abdomen. The Linnaean character of the sphex genus is not distinctly applicable to these insects Mr. Kirby has selected for his new genus, nor to many other exotic species; for the mouth of the Linnaean sphex has no tongue. Gmelin has corrected this error by dividing the genus into families, the first has no tongue, and the second is furnished with one.

AMOR, in Entomology, a species of Hesperia in the Fabrician's syltem. Wings three-tailed, brown; beneath the dill variegated with white, black and yellow, and a golden marginal stripe on the posterior wings. Fabrician. This is truly a Papilio of the plebeii rurales family in the Linnaean arrangement. It is the papilio triopaeus of Cramer, and inhabits the East Indies.

AMORA, in Geography, a town of Affa, in the Arabian Irac, situate on the Tigris, 150 miles south-east of Bagdad.

AMORANS, from AMOR, or APIS, in Literary History, a sect or order of genric doctors, or commentators on the Jerusalem Talmud.

The word is otherwise written amoris, amoratis, amorarum. The amorans are also called, by Scaliger, "philis"; by Alting, "amoratis", or spokes of sentences; by Bartoloccius, "ancretes", or "deceptantes", because they conferred and disputed together in a scholastic manner.

The amorans succeeded the mischmiic doctors. They flourished 250 years; and were succeeded by the fubans.

AMORBACH, in Geography, a town of Germany, in the circle of the Lower Rhine, 12 miles north-east of Heidelberg. AMORDI, AMARDI, or AMARRI, in Ancient Geography, a people of Scythia, according to Pline.

AMORE, in Ichthyology, the name of a tribe of fishes in Morsgrave's Hist. of Brazil, of which he describes three species. 1. The amore paxuma. 2. The amore guzze. And, 3. The amore tinga.

The amore paxuma, or Gobius pisonis, in Gmelin's Linnaean system, has a very broad head, and a very large mouth, but has no teeth. Its body is oblong, and its back and sides are of a dusky iron colour. Its belly,
belly, which is protubent, is white. Its skin is soft; and it has seven fins, besides the tail, which is rounded, at the end. Its flippers are firm and well-tailed.

The amoena is like the former, of an ablong figure; but it grows to fix inches in length. Its head is thick, its pils large, and its mouth is furnished with small teeth. Its eyes are small, their pupils are black, and there is a brown spot on the back. It has seven fins, besides the tail, which is long, and rounded at the end. This species is covered with somewhat larger scales, and is of a rusty iron colour, but somewhat paler on the belly than on any other parts.

The amoena is of the same shape with the former, but is much smaller, and is covered with whitish scales all over, spotted with brown spots. Its tail is brown, and waved with different degrees of that colour. All the three species are eaten, but the first is esteemed the best. They are caught about the American shores.

AMOREVOLI, ANGELO, in Biography, a celebrated tenor singer in the serious opera, was a native of Venice. In 1746 he was the principal tenor in the king of Poland's famous opera at Dresden under the direction of his then maestro di Capella, Hass. In 1742 he arrived in England with Monticella at the beginning of lord Middletown's regency, and remained here 2 or 3 seasons. He surpaas'd in taste and expression all the tenor-singers of his time. He died in 1782.

AMORGOS, in Geography, an island of the Archipelago north-west of Stampalia, which, in the time of Ptolemy (see H. N. liv. iv. c. 121.), bore the name of Amorgos, or Amorgus: more anciently it was called Hipera, and Patage, or Pataga, and, according to Steph. Byz. Patas, Pyliax, and Carcia, containing three principal towns, viz. Arceninos, Minos, and Egeialn. This island is not quite so large as Stampalia; its shores are less winding, and it has fewer capes and points, and of course fewer retreats to navigators. There are none along its eastern coast, which is very steep, and on its western shore there are not more than two tolerably commodious harbours or havens; the one to the north, is called Porto Santi Anna, and the other to the south, which is the ball, is denominated Porto Vathi. The inhabitants of Amorgo were formerly friends to the sciences and fine arts, but they are now devoted to ignorance and superstition. In the country, which gave birth to Simonides, the famous Greek poet, are now to be found no others than papas and calykers, without genius and without knowledge, and distinguished merely by their credulity. They show, in a small chapel, a vase, which they affirm to be a certain oracle, and which the ignorant confut. in order to ascertain the issue of a voyage or enterprise: the vase full of water is a sign of succors, but if it be almost empty, it announces ill fortune. The three ancient towns, Arceninos, Minos, and Egeialn, are now completely destroyed, their foundations are doubtful and there remains of a little town or village, built on an eminence, and monasteries, where miracles are the occupation and the principal revenue of the monks or calykers, who inhabit them. High mountains, and naked and steep rocks, occupy some parts of the island, and in other parts it presents fertile plains and valleys. The abundance of its wines, oil, corn, and fruits, was renowned; and though it still suffices, in a less considerable degree, it has to surmount the obstacles and difficulties of a bad administration. A few districts are still well cultivated, and yield rich harvests; olive trees furnish a tolerably large quantity of oil, in proportion to the extent of the territory; figs are good and common; and the corn is of an excellent quality. This species of large grape with oval seeds, and a succulent and perfumed pulp, called by the Greeks ex-egg, and in France rafin d'Alexandria, here becomes of a considerable size and very delicious. Agriculture retains, in some degree, its ancient prosperity; but the arts, as well as the sciences that direct them, are extinct. At Amorgos are no longer fabricated those rich silks, which, under the name of amorgia, were in great request, both on account of the fineness of their texture, and of the beauty of the colour with which they were dyed. The inhabitants, nevertheless, still apply themselves to dyeing; and they know how to give to their linen a red colour with ardel, a species of bichen which not only clothes the rocks of Amorgo, but also grows on threads of several other islands of the Archipelago. Amorgos is distinguished by the mildness and affability of its inhabitants, and by the beauty of its women, who attached to ancient habits, dignified themselves by the peculiarity of their dress. In this respect they resemble those of Nilo, and Argentaria; with this difference, that the women of Amorgos pass ashawl, or large yellow handkerchief, made of fine wool, over the forehead and the lower part of the face, twirt it round the head in the form of a turban, tie it behind, and suffer a long end of it to hang down the back.

To this island criminals were formerly banished; and thither Thubers exiled Venus Serena.

South of the island of Amorgos, and at the distance of about three leagues, is seen an uninhabited islet, which is called Amorgo Pode, or little Amorgo. The fame island and that of Naxia, or to the west of the former, are other islets equally unincultivated and uninhabited, some of which, covered with lentis (lenticus vulgaris of Turnfort) small cypresses-leaved cedars (cedrus baccata, folio cupreph, &c. of Turnfort) and other wild plants, serve for the feeding of the flocks which are kept on them; while the others, which consist of steep malleys of rocks, delitute of all verdure, are the abode of a multitude of birds of prey. Sannin's Travels in Greece, &c. c. xiv. p. 173-180.

AMORIS POMUM, in Botany. See SOLANUM.

AMORITES, in Ancient Geography and History, were a people descended from Amor (according to the Sepuviots) Hamori (1711717), according to the Hebrew) or the Emorite (in our version), the fourth son of Canaan, (Gen. x. 16.) who first occupied the mountains lying west of the Dead Sea. They also extend themselves to the eartl of the same sea, between the brooks Jabbok and Arnon, from whence they expelled the Ammonites and Moabites. This conquest of Sihon, king of the Amorites, is celebrated by the most ancient poem extant. Numb. xxi. 27-30. Numb. xii. 29, 30. Joshua, v. 17. Judges xi. 19, &c.

When Moses met messengers to Sihon, entreating a free passage through his country, he rejected his request; and marched out against him; but fulfilled a total overthrow at Jazer, and loft his whole dominion. Og likewise, king of Bashan, who confounded the cause of Sihon, and attempted to support the progress of Moses and his people, was vanquished, and fell in battle; and the whole kingdom was transferred to the Israelites. This conquest of the Amorites happened, A. D. 2553, ante Christ. 1451. The prophet Amos (ch. ii. 9) representing their gigantic stature and valour, compares their height to the cedar, and their strength to the oak. The lands possessed by the Amorites on this side Jordan were given to the tribe of Judah, and those which they enjoyed beyond Jordan to the tribes of Reuben and Gad. In Scripture, the name Amorite is often used for the Canaanites in general.

AMORIUM, a city of Asia Minor, which some authors place in Phrygia, but it was afterwards comprised in Galatia. It was in the territory of the Tolistobii, on the river Sangarius. After the 6th century it became an episcopal see, and at length the metropolis of the new Galatia. Michael,
AMO

Amorium, the emperor of Constantinople, was a native of Amorium; and this original fact of the imperial house was adorned with many privileges and immunities; nor was Constantinople itself of much greater value in the estimation of the sovereign and his court. Amorium gives denomination to a war which subsisted between the emperor Theophilus and the Caliph Motaffem, A.D. 858; when the emperor penetrated into Syria, besieged the ancient town of Sozopetra, the birthplace of the Caliph, took it, levelled it with the ground, and marked and mutilated the Syrian princes with ignominious cruelty. In revenge of this injury, Motaffem prepared to attack Amorium. The name of Amorium was inscribed on the shields of the Saracens, and their three armies were united under the walls of the city. Although the wise counsel of the emperor was resolved on the evacuation of the city, to remove the inhabitants, and to abandon the deserted buildings to the refutation of the barbarians. Theophilus determined to defend, in a siege and battle, the country of his ancestors.

The Greeks, in a previous engagement, were repulsed and vanquished; and the emperor vainly hoped, after this defeat, to deprive the fate of Amorium. But the invariable Caliph rejected with contempt his prayers and promises, and detained the Roman ambassadors to be the witnesses of his great revenge. The vigorous assaults of fifty-five days were encountered by a faithful governor, a veteran garrison, and a desperate people; and the Saracens must have raised the siege, if a doomecient traitor had not pointed out the weakest part of the wall, which was decorated with the statues of a lion and a bull. The vow of Montaffem was accomplished with unparalleled rigour; nevertheless in the siege of Amorium above 70,000 Molleans had perished, and their loshs had been revenged by the slaughter of 30,000 Christians, and the sufferings of an equal number of captives, who were treated as the most atrocious criminals. The Caliph's forces being distrietted for want of water, in their return to his new palace of Samaria, in the vicinity of Bagdad, the Christian prisoners rode upon some of them and murdered them; by which act the Caliph was so much exasperated, that he put to death 6000 of the Greeks who had been principally concerned in that commotion. On the bridge of the river Lamus in Cilicia, one day's journey westward of Tarus, 4460 Molleans, 800 women and children, and 150 confederates, were exchanged for an equal number of Greeks. They passed each other in the middle of the bridge, and when they reached their respective friends, they flung Allah akbar and Kyrie eleison. Many of the prisoners of Amorium were probably among them; but in the same year (A. Heg. 231.) the most illustrious of them, the 42 martyrs, were beheaded by the Caliph's orders. Gibbon's Hist. vol. x. p. 67, &c.

The medals of Amorium were bronze, gold, and silver; and Greek medals were struck in this city in honour of Trojan, Caracalla, Geta, and Vespasian.

AMOROSO, in Ital. Muf. implies tenderly; with affection and supplication.

AMORPHA, formed of a priv. and μορφή (form, in Botan.) a genus of the diaphilus decandria class and order, and of the natural order of pappilionaceae or leguminosae; its characters are, that the calyx is a perianthium one-leaved, tubulous, cylindrical and turbinated, mouth erect, five-toothed, obtuse, the two upper teeth larger than the others; permanent; the corolla composed of one ovate, concave petal, scarcely larger than the calyx, erect, inserted into the calyx between the two larger and upper teeth, and placed at the upper face of it; the stigma has filaments very slightly united at the base, erect, unequal in length, longer than the corolla, anthera simple; the pistillum has a roundish, germ, subulate style, of the length of the stamens, and simple stigma; the perforation is a lemma, lateral, reflex; larger than the calyx, compressed, more reflex at the tip, one-celled, and tubercled; the seeds are two, oblong kidney-shaped. There is one species, viz. A. flourifopta, bastard indigo. La Mure mentions a variety. 3. A foliola pellucida pannatis pellucidis glabrositis, which he figures may be a confant species.

This shrub grows naturally in Carolina, where formerly the inhabitants made a coarse indigo from the young shoots, which occasioned their giving it the title of bastard indigo. It rises with many irregular items to the height of twelve or fourteen feet, with very long winged leaves, in shape like those of the common acacia. At the extremity of the same year's shoots, the flowers are produced in long slender spikes, which are very small, and of a deep purple colour; appearing in the beginning of July. After the flowers are pale, the germen turns to a sharp pod, having two kidney-shaped seeds; but these do not open in England. They were sent to England by Mark Catesby in 1724.

This shrub, which Thunberg observed in the great island of Nipon belonging to Japan, is become very common in all the gardens and nurseries near London, where it is propagated as a flowering shrub, for the ornament of the shrubbery. It is generally propagated by seed, sent annually to England from different parts of America, which arrive in February, and are sown in a light soil; they may be also cultivated by laying down the young branches, which in one year will make good roots, and may then be taken off and planted, either in the nursery, or the places where they are designed to remain.

AMORTIZATION, or Amortisement, in Law, the act of turning lands into mortmain, i.e. of alienating or transferring them to some corporation, guild, or fraternity, and their successors.

The word is formed from the French amortir, to extinguijih. See Extinquitament.

The term is also used for the licence or privilege which the king or superior lord grants, to enable such a corporation, &c. to receive lands in mortmain; which otherwise they cannot do.—There is always supposed to be some fine or acknowledgment paid to the king, or the lord, in consideration hereof; to make them satisfied for several accidental fines and profits, which would have fallen to them in the common way, which are hereby cut off.

This practice was borrowed from the ancient Lex Popria, whereby it was forbidden to consecrate any land to religious uses without the consent of the people. See pro Dom. 49.

AMORY, Thomas, in Biography, a presbyterian divine, was born at Taunton in Somersetshire, A.D. 1700. Having finished his preparatory classical education under Mr. Chadwick, he commenced his academical studies at a respectable seminary for the education of dissenting ministers, under the tuition of Mr. Stephen James and Mr. Henry Grove. In 1723 he began to officiate as an occasional preacher; and removed to London to pursue a course of philosophy under Mr. John Eames, an eminent tutor among the dissenters. In 1725 he became the colleague of his uncle Mr. Grove, in the department of classics and natural philosophy; and at the same time he preached occasionally at Hull Bishops, and some other places in the neighbourhood of Taunton. From the year 1730 to the year 1759, he was pastor of a congregation at Taunton; and in 1738 he succeeded Mr. Grove, and became sole tutor of the academy under his care. As a minister and tutor he was much respected and esteemed, on account of his
his comprehensive knowledge, unimpeachable integrity, and exemplary moderation. In 1759 he removed to London, to the great regret of his friends at Tamworth, but principally with a view of more advantageously settling his family; and accepted an invitation to become colleague with Dr. Chandler, and afterword preacher to the congregation at the Old Jewry; and at the death of Dr. Chandler in 1766, he was chosen to succeed him as joint-pastor with Mr. White. His real merit entitled him to a greater degree of popularity than he experienced in the metropolis; but though his talents were not of such a nature as to command a numerous audience, he was distinguished by the respectful and cordial attachment of many judicious and liberal friends. In 1768 he received the honour of the degree of doctor in divinity from the university of Edinburgh; an honour to which his talents, learning, and character justly entitled him. He was morning preacher to the congregation at Newington Green, in connection with the celebrated Dr. Price, of whom a particular account will be given in the course of this work; and he was also appointed one of the six preachers at the Merchants' Lecture at Salters' Hall, and a trustee of the charities of the late Dr. Daniel Williams, whose library contains a valuable collection of books, and is, under its present regulations, daily improving both in extent and utility. He retained his faculties, and his capacity of usefulness, to his death, which happened in the year 1774. His funeral sermon was preached by his intimate friend Dr. Flexman; who, after an intercourse of more than 50 years, declared, "that their friendship had never once been interrupted by dispute or darkened by a frown." Dr. Amory left a widow and six children, one of whom was for many years an eminent banker of the city of London. The subject of this brief memoir, as the writer of it can testify from personal acquaintance, was distinguished by a found judgment and amiable disposition. His piety and benevolence were eminent features of his character, and were fo intimately blended as to command respect and esteem from all who knew him. In the more advanced period of his life, his studies were chiefly directed to subjects of theology and ethics. His sentiments, with respect to some of the principal disputed points, coincided very nearly with those of Dr. Samuel Clarke; his mode of preaching was judicial, practical, and devotional: and though he did not the attribute, he approved himself to the feasible and candid.


AMOS, in Scripture Biography, the third of the twelve minor prophets, in the order of the Hebrew Scriptures, but the second in the order of time, was the son of a shepherd, and, though probably born in the territories of Israel, re-

tired to Tekoa, a village of the tribe of Judah, about five miles from Jerusalem. Under Uzziah, and Azariah, king of Judah, whose reign commenced in the 27th year of Jeroboam II. king of Israel, B. C. 804, Amos began to prophesy; but the precise year is not ascertained. Archbishop Newcome dates the commencement of his prophetic office in the year 823, B. C.; but Falconer in his "Chronological Tables," assigns it to the year 807, B. C. His first predictions were delivered at Bethel, whence he was driven back to his own country by Amaziah, the high priest of Bethel, who accused him before Jeroboam. These occur in the seventh chapter; and the others were pronounced in Tekoa, whither he retired after his banishment from Bethel. His two first chapters contain his prophecies against Damascus, the Philistines, Tyrians, Edomites, Ammonites, Moabites, Judah, and Israel; and the evils he threatened refer to the invasions of Salmonaz, Tiglath-pileser, Sennacherib, and Nebuchadnezzar. Amos also foretold the calamities that would befal the kingdom of Israel, after the death of Jeroboam II. who was then living; the death of king Zecchariah; the invasion of Israel by Phut and Tiglath-pileser, kings of Assyria; the captivity of the ten tribes, and their subsequent restoration. He remonstrates against the prevalent iniquities of Israel, their effeminacy, avarice, and obduracy with regard to the poor, the splendor of their buildings and the delicacy of their tables. He reproves the children of Israel for their pilgrimages to Bethel, Dan, Gilgal, and Beersheba, which were the most famous at that period, and for sacrificing to the gods of these places. The style of Amos is characterized by its simplicity, and by frequent allusions to pastoral life. Jerom (Proem. Comment. in Amos,) referring to the words of St. Paul, calleth him rude in speech, but not in knowledge. Suceeding writers, on the authority of this ancient father, have represented him, as if he were quite rude, and deficient of all the beauties of composition. But a very competent judge has given a very different opinion. Let any one, says bishop Lowth, (Prælectiones de Sacra Poëth. præf. xii. p. 285,) who has sufficient discernment and candour for forming a just judgment, from the writings of this prophet and not from the man, turn over the volume of his predictions, and he will pronounce, that our shepherd prophet is not a whit behind the chief of the prophets.

The time and manner of the death of Amos are unknown. It appears (2 Chron. xxxvi. 22. Is. i.) that Amos was the father of the prophet Isaiah, and of the family of Albur, (1 Chron. ii. 24.) from whose son Tekoa derived its name. Calmet and many others, however, have thought that Amos the father of Isaiah, was a different person, and of royal rank; but there seems to be no sufficient reason for this opinion.

AMOS, or AMUS, in Ancient Geography, a city of Asia Minor, in Caria. Steph. Byz.

AMOTAE, in Geography, a town of South America in Peru, situated near Tumbez, on the coast of the South Sea. The adjacent country, watered by a fine river, is highly improved.

N

AMOUS,
AMP

AMOUR, a town of France in the department of Landes, and chief place of a canton in the district of St. Sever, five leagues both of Tartas, and four leagues and a half south-west of St. Sever. The town contains 1721 and the canton 11,935 inhabitants; the territory includes 1824 square miles and 866 leagues.

AMOVING, in Latin, the act of removing or expelling a person from his place, office, or the like. We have statutes for removing papists out of London and Wollminton, and ten miles round the same. 1 W. and M. cap. 9.

AMOUR, William de St. in Topography, a French cedelaste of the 13th century, was born at St. Amour, in Franche Comté, and became canon of Beauvais, and doctor of the Sorbonne. He distinguished himself in the controversy of 1278 between the Dominicans and the University of Paris. The Dominicans claimed two professorships in the university; but the secular doctors refused their claim, and passed a law, refusing persons of the regular order to one. The dispute was referred to the court of Rome, and Amour was an able and zealous advocate in favour of the university. In a book Concerning the perils of the law Times, he attacked the whole mendicant tribe, and attempted to prove, that the prophecy of St. Paul relating to the pernicious times (2 Tim. iii. 1) was fulfilled in the establishment of the faiths of this order. The book was condemned by pope Alexander IV. and the author was sentenced to perpetual exile from France. Upon the accession of Clement IV. Amour returned to Paris, and in a collection and enlargement of his works, renewed his attack on the character and conduct of the mendicants. By favour of this pope, who respected his talents and merit, he remained un molested till his death in 1272. The mendicants reproached him as a heretic; but by the doctors of the Sorbonne he was highly respected. His spirit and eloquence against idleness and hypocrisy, amassed by humility and facility, justify the panegyric of Molinist, who represents him as “a man of true genius worthy to have lived in better times, and to have adorned a more enlightened age.” His works were published at Paris, in 4to, by Condé, in 1672, but the editor concealed his name, and the place of publication under the figulatory inscription, Conlantiae ad fontis bonae fidei apud aliothophilos. Cave H. L. tom. ii. p. 303. Molinist. Eccl. Hist. vol. iii. p. 202.

AMOUSHE, Raël, in Geography, the Battel of Edirih, a large cape formed by the mountains of the Shenooah, on that part of the sea-coast of Africa, called the Western Province or the province of Tlemfan. At a small distance is the Mere el Amouche, or port of Amouche, which is very safe in weathers winds. Shaw’s Travels, p. 20.

AMOF, an island on the south-west coast of India, where the English East India Company had once a factory, since removed to Canton. It lies west from the nearest part of Formosa island, somewhat more than 3° of longitude, and from the south-east point of China, which is called from Macao, about north north-east. The port of Amof has been described as one of the most convenient and safe harbours in India, on account of the road which is formed by that island between it and the continent, and it is so deep and large as to be capable of receiving 1000 ships of the greatest size, and of protecting them from every wind. N. lat. 24° 30'. E. long. 118° 45'.

AMPARES, a jurisdiction under the archbishop of Plata, eastward of that city, in the empire of Peru; abounding in grain and cattle.

AMPANA, in Botany, a name given in the Hortus Malabaricus to a genus of plants, since described by Linnaeus, under the name of Borassus.

AMPASA, in Geography, a small country and kingdom of Africa, on the coast of Zanguebar, between the line and Mendi. It has a capital of the same name; the king is a vassal of the Portuguese. S. lat. 1° 30'. E. long. 60° 20'.

AMPATRES, a people of Madagascar, on the southern coast between Carambolii and Caneceii, who live in the midst of forells and habit in by plunders.

AMPELS, in Botany, the vine. See Vine.

AMPELLIS, in Ornithology, a genus of birds in the Linnean Syllem, belonging to the order Passeres. The characters of this genus are, bill short, convex, upper mandible long and, somewhat incurvated; each mandible notched. Niphus covered with bristles. Tongue acute, cartilaginous, bifid. Linn. & Gmel. Dr. Latham’s generic character of ampeles is somewhat different, viz. bill short, convex, beading towards the point; near the end of the upper mandible a small notch. Niphus hid in the bristles. Middle toe connected to the outer at the base.

Gmelin describes eleven species of this genus, carinates, carinules, cyana, cocinea, cinainga, criptata, gavialis, maxna, pampadoras, tefra, and vorticuata, which see.

AMPELITES, or candle-coal. See Coal.

AMPELLA, or AMPILLA, in Geography, a city and seaport in Guatimalguil, in that of Mexico, 330 miles south-east of the city of Guatemala, which carries on a brisk trade in cochineal, cocoa, hides, indigo, &c.

AMPILON, in Ancient Geography, a colony of Miltians, in Arabia Felix, transported thither by the Persians.

AMPELOS, or AMPHILUS, a promontory of the island of Samos, to the west of that island, and opposite to that of Tecriis. Amphelos was also a promontory of Macedonia, according to Polonius, in the country called Parana; probably near the mouth of the Axios. Amphelos was also a town of Italy, in Liguria.

AMPULUSIA, or AMPULUSIT, a promontory of Mountanis Lingisana, not far from Tangis, mentioned by Strabo, Polonius, and Mela. It is denominated by the moderns Cape Scarpel. From Mela and Bochart it appears that Cottis and Ampulfitia were, in the Phenician and Greek languages, terms of the same meaning, and that they were deduced from the grapes with which that country abounded. Ampeleia was also a town and promontory of Crete, now called Capo Sovico. It was also a town and promontory of Macedonia, near the gulf of St. Anne, and now called Capo Canfira.

AMPERES, from verbs in both genders, in Antiquity, a kind of vessels, wherein each mariner brought two or three at the same time, one with the right hand, and the other with his left, answering to our scullers. This is also called arhipelium.

AMPEZO, in Geography, a town of Germany, in the country of Tyrol, ceded to Austria by the Venetians in 1505, 12 miles south of Bruneck.


AMPHANE is also a strong place of The Sally, probably the same that called by Scylax Amphineum.

AMPHAXITIS, a district of Macedon, in which was situated the city of Thessalonica.

AMPHEA, or AMPHEA, a town of Melfania, mentioned by Steph. Byz. and also by Pausanias, who places it in the vicinity of Lacoon.

AMPHAIRUS, in Mythology, a famous poet among the Pagans, was the son of Oileus, and great grandson of Mclampus, to whom part of the kingdom of Argos was assigned, as a recompense for some public service. In consequence of this division of Argos, Adrastus, its king, was overpowered by the party of Amphairus, and obliged to abandon the kingdom. Amphairus afterwards married Eryphila, the sister of Adrastus, and he was restored to the throne. During the preparations for the expedition against Therbus,
A M P

Thebes, Amphiaras, who poisefled the faculty of divina-
tion, was forewarned that he should lose his life in this war, and therefore he concealed himself, in order to avoid engaging in it; but his wife, being prevailed upon by a present of a gold chain, discovered the place where he was hidden, so that he was obliged to accompany the other princes, who marched against Thebes. The expedition was fatal to him; for the earth being split asunder by a thunder-bolt, both he and his chariot were swallowed up in the gulf. Pindar and Apollodoros mention this circumstance; and they ascribe the event to the kind interposition of Jupiter, who thus prevented the diabolism of his being killed by Petylemenes, by whom he was pursued. After his death he was ranked among the gods, temples dedicated to him, and his oracle, as well as the sports that were intituted in honour of him, were very famous. He was believed to excel chiefly in divining by dreams, and is said to have been the first who divided by fire. He left in charge with his children to put his wife to death, as soon as they were able to do it. Apol-
doros reckons him among the Argonauts.

AMPHIARTHROSIS, in Anatomy, a neutral or du-
hon kind of articulation; distinguished from the diarthrosis, in that it has no conspicuous motion; and from the synarthrosis, in its not being without febile motion.

The word is derived from συσς, both, and αφθανος, articulation, the amphiarthrosis being compounded of both the other forms.

Mr. Winslow cites, as specimens of this kind of articulation, the conjunction of the first rib and sternum by a single cartilage, and the connections of the vertebrae with each other by the intervertebral fibulæ.

AMPHIBALUS, in Biography, a monk of Carleon, who is said by some to have been a Roman by birth, and to have made his escape into Britain in the time of Duguellan's persecution. Others say, that he was born at Car-
leon, the metropolis of Wales, and that he was rector of the university of Cambridge. He was the preceptor of St. Alban, and instrumental in his conversion; and was crowned with martyrdom.

AMPHIBALLUS, Amphiballon, or Amphimall-
us, among Middle Age Writers, denoted a large marine, such as were the forerunners of the monks, which encompassed the body on both sides, (whence it was called amphiballus, from αμφι, and δαλλα, and amphiballon, from αμφι and μαλλος, a fleece of wool) and which was not barely thrown over the shoulders, like the toga. See CARACALLA.

AMPHIBIA, in Zoology, the third class of animals in the Linneus system, including those which possess, in a certain degree, the power of respiration, and are thereby enabled to live either in water or upon land. The characters assigned by early naturalists to animals of this class are, in many re-
spects, exceptionable; and those of Linnaeus are liable to some objections, as the writings of Count de Cepede, Mr. Schneider, M. Schoepff, and Dr. Shaw have proved in various instances; yet the Linnean arrangement is still adopted with some amendments, and upon the whole this is most ad-
vantageous, till this obscure tribe of creatures is more completely ascertained.

The amphibia are either naked, or defended by an exter-
nal covering; the skins of such as are denominated naked, are in general marked by soft, pitular warts; the coverings of the others are either horny shields, coriaceous integu-
ments, or scales. The lungs of the amphibia differ mate-
rially from those of other animals in the two preceding classes, mammals and fves, consisting in general of a pair of large bladders or membraneous receptacles, variously sub-
divided in different species; and the heart is furnished with one ventricle only. Some late physiologists have, however, ventured to assert, that the hearts of the amphibia are in reality double, or furnished with two ventricles, with a free or immediate communication between them.

In the Linnean arrangement, the amphibia are formerly divided into four orders, viz. 1. Reptila pedata, reptiles; amphibious animals, which breathe through the mouth by lungs only, and are furnished with four feet. 2. Serpentes apodæ, serpents; amphibious animals, breathing through the mouth by means of lungs only, and ditincture of feet, fins, and cars. 3. Mammalia, gliders; animals breathing by means of gills and lungs, and furnished with arms and claws; and 4. Amphipodes, breathing fishes, being placed in their natural order amongst the Pisces, under the title CHONDROPTERYGI; that order now in-
cludes the genera Aipigenus, Chiëma, Synurus, Reja, and Petromyzon; the Lophius genus is separated from the others, and arranged amongst the Pisces BRANCHIOPTERI.

The order of reptiles is divided into four genera, viz. Testudo, Draco, Lacerta, and Rana; and that of serpents into five genera, viz. Crocellus, Boa, Coluber, Anguis, Amphibia, and Caelia. This is the ar-
rangement of Gmelin, to which must be added the genus Siren; a kind of reptile, whose ambiguity of character induced Linnaeus to form the new order MEANTES. Lin-
aoc. Acad. vii. p. 31; et Syll. Nat. vol. i. part ii. Add-
ded. Gmelin has configured this creature to the first genus of fishes, Murana; and Dr. Shaw refutes it to the Siren genus in the appendix to his Zoology, vol. iii. p. 4, Amph.

It may well be doubted whether this, and two other known kinds of the same family be complete animals, or only the larvae or first state of some lizards, as Dr. Shaw very judici-
ously suggests.

The new genera of serpents, not noticed by Gmelin, are Acrochordus, Hydus, and Langava.

Of the amphibia in general, it has been observed, that their bones are more cartilaginous than those of other animals, and many possess the singular power of reproducing their tails, legs, and other parts when destroyed; in this respect bearing some affinity to many marine insects, as crabs, lobsters, &c. Some are viviparous, or hatch the young ones in the eggs, internally, and bring them forth alive; others deposit their eggs, and hatch them afterwards. The eggs differ also, some are covered with a calcaneous shell, others with a tough skin resembling parchment, and many, as in the Rana genus, are perfectly gelatinous. Numbers undergo a metamorphosis, or call their skins; all are extremely tenacious of life, and, from their peculiar internal structure, capable of enduring a longer abstinence than any of the larger tribes of animals. During Winter many remain in a state of torpidity.

Very few of the reptile tribes are venomous; and of the serpents not more than one-fifth are known as such. Those creatures, therefore, which are naked, and without limbs, seem perfectly defenceless, but nature has armed the rept.
not only with the means of offense, but also with the most dreadful means of aggression; and the poisonous serpents, collectively, are undoubtedly the most hideous and formidable tribe of creatures known. The poisonous kinds are furnished with tubular fangs, which are perfectly distinct from the teeth, and situated upon a glandular vehicle on the anterior part of the upper jaw; in this vehicle the fatal fluid is secreted, and when the wound is inflicted, discharges its contents into the fangs, through which it ooze by the linear apertures on one

side,
side, and effects its malignant purpose. The jaws of the serpents are extremely dilatable, and the esophagus so lax, that they can swallow, without mastication, an animal twice or thrice as large as the neck.

**Amphiura.** Anatomy of. See Classification of Animals and Reptiles in Comparative Anatomy.

**Amphibious,** in Natural History, a term applied to those animals which live both on land and in water. In technical language it is confined to those creatures which constitute the amphibia of naturalists; in a general sense it includes the otter, seal, beaver, and various other animals of the mammalia tribe, who live on land, and occasionally go into the water in search of prey; the word being derived from the Latin amphius, both ways, and viv, vita, life; as living in both places.

Dr. Parloss, in an ingenious paper published in the Transactions of the Royal Society, after considering the economy of amphibia, divides them into two sections; first, such as enjoy their chief functions on land, but occasionally go into the water; and secondly, such as chiefly inhabit the water, but occasionally go ashore. Of the first kind he includes the phoca, otters, beavers, and some kinds of rats, frogs, and lizards, the hippopotamus and tæto; and all, which he observes, are capable of remaining for an inconsiderable length of time in the water, to collect their prey, but are compelled to rise to the surface to breathe, and return ashore to perform most of the ordinary functions of nature. The ball are but of two kinds, cels, or water-ferrets, or snakes of every kind.

Most of the amphibia forms, the caflor, or beaver, and other excepted, have peculiar provisions in their structure to fit them for such a various way of living; particularly in the heart, lungs, foramen ovale, &c.

In some of these animals, as the frog, tortoise, &c., the heart has but one cavity, with an artery to receive the blood coming out of it, and a vein to convey it thither. In others, the foramen ovale appears to be still open for the passage of the blood from the ventricle to the arteria ventosa, without the help of breathing.

In the caflor, described by the academicians of Paris, though the foramen was not found actually open, yet the marks of it appeared; and the cause of its closure might be well enough accounted for, by the animal's having been detained a good while in the water, by which the part, having been in diffuse, closed up. In the otter the case is different; there is no appearance of any thing like a foramen; and hence the necessity the creature is under of riling, from time to time above water, to take in air. Phil. Trans. No 124.

The structure of the feet of the caflor pronounces it amphibious at first sight, the fore feet being formed like those of terrestrial animals, who hold their food in their feet, e. g. squirrels, while the hind-feet are fashioned after the manner of river fowl, with webs or membranes between the toes, as the goose, duck, &c.

Some kinds of insects, in different climates, may be said to be amphibious. The dytiscus, notonecta, and napa, undergo all their transformations from the egg, larva, and pupa state in the water, and though furnished in the perfect state with wings, and consequently destined to live on land, seldom quit the water except in the evenings, and confinantly return to it when their flight is over: these are called water-boatles. Others remain in the water only in the first stages of their transformations, and would perish in their native element from the moment they become winged creatures, as is frequently observed of the libellula, ephemer, and phryganæ, and some of the myxus and culicæ; and amongst the latter the transformation of the species pipiens, common gnat, is a striking instance of this remark. In fact many of these creatures which are mistaken for aquatic worms, are no other than the larvæ, or pupæ of amphibious insects, which their parents deposit in the egg state, on the leaves and flake of plants, &c. that grow in the water; and those hatching insinuantly, remain in the water till they become winged insects.

Birds are in a much less degree amphibious. Amongst those which are denominated water-fowls, from almost constantly living on that element, the divers and corvorsants are capable of remaining a considerable length of time under water; perhaps nearly as long as the otter. Swallows would certainly well deserve the title of amphibious, if, as some have imagined, they paused the whole winter in a lake of torpidity under water.

Dr. Hunter observes, that, properly speaking, there are no amphibious animals; for that fish cannot live long without air, though much longer than men.

The term amphibious has been sometimes also extended to men, who have the faculty of living a long while under water. We have various instances of such amphibious men: the divers employed in the pearl-fisheries pollens this faculty in an eminent degree. Credibility itself is staggered at the story of a Calabrian monk, who once of the king of Spain to continue twice twenty-four hours under water; but it is believed that a Sicilian, named the Fiji-Color, by a long habitue from his youth, had so accomplished himself to live in water, that his nature seemed to be quite altered, so that he lived rather after the manner of a fish than a man. Kircher.

**AmphiCida, in Entomology, a species of Papilio.** Wings, indented, above brown, with a connected silk of cincuous waved with brown, beneath, tins grey with black marked nates. Fab. et Gmel.—This species inhabits Africa. Above, the base and margins are entirely brown; cincuous in the middle, with two large undulated waves, the first brown, the second black. Beneath, pale at the base with rufous spots, and undulated lines, apex grey with a row of lunate black marks. Fabricus.

**Amphiblestroides, in Anatomy, a tunic or coat of the eye, more usually called retina.**

The word is compounded of amphi, amphions, and nets, and opho, form, on account of its net-like texture: whence the Latins also call it retinosis.

**Amphibology, from amphi, amphious, and logos, discourse, or Amphibola, in Grammar, a fault in language, whereby it is rendered obscure, and liable to be understood in a double sense.**

Amphibology is chiefly used in respect of a phrase, as equi-vocal is in respect of a word.

Of this kind was that answer which Pyrrhus received, from the oracle, "Aio te, Adæcida, Romanos vincere po!" where the amphibology consists in this, that the words "te," and "Romanos," may either of them precede, or either of them follow the words "po! vincere!" indifferently. See Oracle.

The English language usually speaks in a more natural manner, and is not capable of any amphibologies of this kind; nor is it fo liable to amphibologies in the articles as the French, and most other modern tongues.

**Amphibrachys,** the name of a foot in the Latin and Greek poetry; comprising of three syllables, the first and last whereof are short, and that in the middle long.

The word comes from amphis, circum, and bres, brevis, q. d. a foot short at both ends, and long in the middle.—Among the Ancients it is also called tainius, and fœlius. Dion. l. ii. p. 475.

Such are the words ambris, abris, pateronis, Opis, &c.
Paulanius and Heroëtus, Amphicleia. The Amphictyons, in their decree against the Phocian cities, gave it the name of Ophiaca. This city belonged to the Dryopes, and was pleasantly situated to the left of the river Cephissus, and near Mount Òeta. Amphicleia was famous for a temple and oracle of Bacchus, who, under the character of a physician, pretended to cure all disordered persons that applied to him.

AMPHICTYONS, AMPHICTYONES, in Antiquity, the deputies of the cities and people of Greece, who represented their respective nations in a general assembly; having a full power to concert, resolve, and appoint what they should think fit for the interest of the commonwealth. They were empowered to employ not only the rigour of the laws, in the execution of their decrees, but even to raise troops, if it were necessary, to compel such as rebelled to submit to them.

The amphictyons very much reformed the states-general of the united Provinces; or rather, what in Germany they call the Diet of the empire.

Some suppose the word AMICTYON, to be formed of αμ, about, and χι, or χιετο, because the inhabitants of the country round about met here in council. Others, with more probability, derived it from AMPHICTYON, son of Deucalion, whom they suppose to have been the founder of this assembly; though others will have Acerius, king of the Argives, to have been the first who gave a form and laws to this body.

Androcles, in his History of Attica, quoted by Paulanius, (lib. ii. c. 8. p. 817.) informs us, that from the most early period, deputies from the neighbouring states assembled at Delphi, and that these deputies were, from that circumstance, called Amphictyons; and that consequently, in process of time, this became the prevailing denomination of that high court. According to this account, whether the author’s etymology be right or not, this was an original institution, deriving its establishment from neither Amphictyon nor Acerius, but existing from the earliest ages of antiquity. Dr. Doig (Edinb. Trans. vol. iii. p. 150, &c.) suggests, that as the Hellenes had founded the oracle of Dodona, they probably established also the oracle of Delphi. This oracle acquired great reputation, and the concourse of the people to the temple of Delphi was immense. Its situation was well chosen for this purpose; and it lay nearly in the centre of those petty tribes that afterwards formed the Amphictyonic association. These states, becoming jealous of the growing power of the oriental colonies, determined to hold their conventions at Delphi, in order to concert measures for their mutual security. Both its sanctity and central situation pointed it out as a place well adapted to this purpose. The Hellenic prelates of the temple, superior to the Barbarians in political capacity, would from every nerve to promote a scheme calculated to advance both their honour and their interest. Common sacrifices have, in all ages, been deemed an infallible sign of amity and concord, and also the means of maintaining and promoting them. The confederates would therefore assemble at Delphi to offer sacrifices, and to perform other religious rites on behalf of all the associated tribes. These would serve as an indissoluble bond of their federal union. The confederates, on this occasion, would present liberal donations, and thus greatly enrich the treasury of the temple. It must therefore occur to them, that it would conduce both to their honour and interest to appoint officers for superintending this treasure. Strabo says expressly, (lib. ix. p. 420.) that this was one of the ends of the institution of the Amphictyons. Hence it appears, that the original Amphictyons were a kind of wardens of the temple of Delphi, elected by the suffrage of the confederate tribes. In process of time another class of persons would naturally be added to the former, whose province should be to watch over the civil interests of the confederacy. These two classes of superintendents gradually coalesced into one, and both united in discharging the sacred and civil functions annexed to their office. A tribunal, thus formed and established, reflects immortal honour upon Greece, and demonstrates the wisdom and sagacity of the Hellenes, to whom its institution is ascribed by the ingenious writer above cited, and which he connects, in its origin, with the oracular establishment at Delphi. Had its members been always animated by a spirit of peace, of justice, and of good order, it would have rendered itself for ever respectable; and the associated states under its direction would never have become a prey to the defiled Macedonians.

This council was principally instituted with a view of uniting in the sacred bond of amity the several people of Greece that were admitted into it, and of obliging them, by that union, to undertake the defence of each other, and to be mutually vigilant for the tranquility and happiness of the country. The Amphictyons were also created to be the protectors of the oracle of Delphi, and the guardians of the wealth of that temple, and also to adjudge the differences that might arise between the Delphians and those who came to consult that oracle.

Authors give different accounts of the number of the Amphictyons, as well as the states that were entitled to have their representatives in this council; according to Strabo, Harpoeratios, and Suidas, they were twelve, from their first institution, sent by the following cities and states; the Ionians, Durians, Perrasians, Bœotians, Magnesiens, Achaens, Phthians, Melians, Dolopians, Èonianians, Delphians, and Phocceans. Each of these only reckoned eleven, instead of the Achaens, Èonianians, Delphians, and Dolopians, he only gives these three, the Thebians, Ètans, and Loerians. Lastly, Paulanius’s list only contains ten Amphictyons; namely, the Ionians, Dolopians, Thebians, Èonianians, Magnesiens, Melians, Phthians, Doriens, Phocceans, and Loerians.

In the time of Philip of Macedon, the Phocceans were excluded from the alliance, for having plundered the Delphian temple; and the Lacedæmonians were admitted into their place; but the Phocceans, sixty-eight years after, having behaved gallantly against Brennus and his Gauls, were restored to their seat in the amphictyonic council. Under Augustus, the city Nicopolis was admitted into the body; and, to make room for it, the Magnesiens, Melians, Phthians, and Èonianians, who till then had distinct voices, were ordered to be numbered with the Thebians, and to have only one common representative. Strabo speaks as if this council was exact in the times of Augustus and Tiberius; but Paulanius, who lived many years after, under Antoninus Pius, affirms us it remained entire in his time, and that the number of amphictyons was then thirty.

When the Lacedæmonians, in order to pass any decrees which they thought proper, were for excluding the Thebians, Argives, and Peloponnesians, Timæides (Plut. in Them. p. 122.) in the speech he made to the Amphictyons for preventing that design from taking effect, seems to inform us that there were at that time 250 cities which had the right of sending deputies to this council.

The members were of two kinds; each city sending two deputies, under different denominations, one called συνεχας, whose business seems to have been more immediately to inspect what related to sacrifices and ceremonies of religion; the other ἀντιπάραγοι, charged with hearing and deciding causes and differences between private persons. Both had an equal right to deliberate and vote, in all that related to the common interests of Greece. The former was elected by lot; the latter by plurality of voices.

Though
Though the amphictyons were first instituted at Thermopylae, M. de Valois (Mem. Acad. Bulles Lettres, vol. iii.) maintains, that their first place of residence was at Delphi, where, for some ages, the tranquility of the times found them no other employment than that of being, in we may so call it, church-wardens of the temple of Apollo. In after times the approach of armies frequently drove them to Thermopylae, where they took their station, to be nearer at hand to oppose the progress of enemies, and to order timely succour to the cities in danger. When they assembled at Thermopylae, they held their feasts in the temple of Ceres, near the mouth of the river Aepus. Their ordinary residence, however, was at Delphi.

Here they decided all public differences and disputes between any of the cities of Greece; but before they entered on business, they jointly sacrificed an ox, cut it into small pieces, as a symbol of their union. Their determinations were received with the greatest veneration, and even held sacred and inviolable.

The Amphictyons, at their admittance, took a solemn oath, the form of which is prefixed by Mechin (in Orat. p. 75) never to dwell any city of their right of deputation, never to avert its running waters; and if any attempt of this kind were made by others, to make mortal war upon him; more particularly, in case of any attempt to rob the temple of any of its ornaments, that they would employ hands, feet, tongue, their whole power, to revenge it. This oath was enforced by terrible imprecations against such as should violate it; c. gr. May they meet all the vengeance of Apollo, Diana, Latona, and Minerva; &c. their fruit produce no fruit, their wives bring forth nothing but monsters, &c. lose all their lands, be conquered in war, have their houses demolished, and be themselves and their children put to the sword.

The fixed times of their meetings were Spring and Autumn; the Spring meeting was called Euph在哪，that in Autumn Eust夏。On extraordinary occasions, however, they met at any time of the year, or even continued sitting all the year round.

Philip of Macedon usurped the right of presiding in the assembly of the Amphictyons, and of first consulting the oracle, which was called Pythian. From this time the authority of the Amphictyons began to decline; for he claimed the right of presiding even by proxy both in this assembly and in the Pythian games, of which games the Amphictyons were judges and agonothetes in virtue of their office. This Demosthenes reproaches him with in the third Philippic: "When he does not preside, we say, to him, ‘In your presence, you send your representatives to preside over us.’" After the conquest of Greece by the Macedonians, this tribunal was deprived of its influence. Augustus, too, made some new regulations with respect to the flaves, which were invested with the privilege of sending deputies to this council. Though it subsisted in the days of Paulianus, as we have already mentioned, it was probably of so little repute in the age of Strabo, that this geographer looked upon it as in a manner annihilated.


AMPHIDROMIA, from ἀμφὶ, and δρόμος, a course, in Antiquity, a feast celebrated the sixth day after the birth of a child, called diei luctibus, or lustral day.

AMPHIDRYON, in Biblical and Theological Writings, a veil or curtain usually drawn before the door of the lema in ancient churches.

AMPHIGENIA, in Ancient Geography, a town mentioned by Homer, situate in the southern part of Elis, comprehended by the ancients in Nemea. In this town was a temple of Latona; and the inhabitants pretended that their town had given birth to Apollo.

AMPHILOCHII, a town of Spain, in Gallicia, founded by Tenser after his return from the Trojan war; and so called, as Strabo informs us, from the name of Amphilochoi, one of his companions, now Orestes.

AMPHILOCHIA, a country of Arcadia, situate to the east of the Ambrian gulf, and watered by the river Iachus. The inhabitants were called Amphilytii, deriving their name from Amphilochoi, the son of Amphiaras, and their capital was denominated Aegora Amphilocheorum.

AMPHILOCHIA, a place of Peloponnesus, in Elis. Steph. Byz.

AMPHILOCHIUS, in Biography, a native of Candepolis, was appointed bishop of Iconium, the chief city of Lycisca, about the year 370 or 373. In his youth he studied rhetoric and practised law; but afterwards devoting himself to a religious life, he retired, with his friends Basil and Gregory Nazianzen, into a solitary part of Cappadocia, called Ozaja. After he was advanced to the episcopal office, he affiliated at the first general council of Constan- tinople in 381, and also at subsequent councils in 385 and 394, soon after which he died. His eminence may be inferred from the several letters written to him by Basil, and from the character given of him by Theodoret and others. Jerome joins him with Basil, Gregory, and others, who were equally skilful in secular learning, and in the sacred Scriptures. Of his zeal against the Arians we have ample testimony from Theodoret Exccl. Hist. (lib. v. c. 16) and Sozomen (lib. vii. c. 6) and others. Being very desirous of prohibiting Arian assemblies, and finding the emperor Theodosius remiss in complying with his wishes, he contrived to accomplish his object by the following expedient. Whilst he was in the palace with other bishops, who were paying their respects to Theodosius, he took no notice of his son Arcadius, who had lately been declared Augustus. When the emperor reminded him of this seeming disrespect, and recommended his son to notice, Amphilochus apologised by saying, that he had paid respect to him, and that was sufficient. The emperor was displeased, and said, that a flight put upon his son was an indignity to himself. You are angry, replied Amphilochus, with those who fly your son, and cannot endure it: persuade yourself then, that the God of the whole world is offended with those who blaspheme his only begotten Son, and hates them as ungrateful to their Saviour and Benefactor. This mode of reasoning produced the wished-for effect; and Theodosius soon afterwards, A. D. 385, forbade the assemblies of heretics. But this was not the only way in which the bishop manifested his dislike of heretics; and the law procured for this purpose, and dated July 26, A. D. 385, is still extant, which prohibits all heretics, particularly Eunomians, Arians, and Macedonians, to hold any assemblies of worship in public places, or private houses. He wrote a book against the Manichians, and another work, entitled, "Of Pseudepigraphal Books composed by Heretics," both which are lost. "If they had been extant," says Dr. Lardner, "I suppose they would have given me more satisfaction than the law of Theodosius, which affords not any argument:" nor was Amphilochoi to be commended, adds this mild and candid writer, for procuring that law. A few fragments are preserved of Amphilochoi's book "Concerning the Divinity of the Holy Spirit," and his "Synodical Epistle," edited by Cotelarius. The Latin poem, addressed to Selseus, and containing a catalogue of the books of the Old and New Testament, has been ascribed by many to Amphilochoi;
philochus; but others are of opinion, that it was written by Gregory Nazianzen; they allege that the style is his, and that we have no information that Amphilochoi ever wrote verse. The poem, however, affords evidence of the care and caution of the ancient Christians concerning books received as part of sacred scripture, and the rule of their faith. This and other pieces, probably forgeries, were published by Combetics at Paris, in 1644. Cave H. L. tom. 1. p. 251. Laudner's Works, vol. iv. p. 411, ccc.

AMPHILOCUS, in History and Mythology, the son of Amphiaras, was no less famous as a diviner than his father. He accompanied Amnemon, his brother, to the second war of Thebes, and assisted in killing his mother, according to his father's injunction. After the war of Thebes, he allotted Mopsus in building the city of Mallus in Chio, where he had an oracle; and it is said that he had an altar erected to him at Athens. The answers of the oracle at Mallus were given by dreams; those who came to consult it slept a night in the temple, and that night's dream was the answer required. Dion Cassius mentions a picture done by order of Sextus Condianus, and representing the answer he received from the oracle in the reign of the emperor Commodus. In the time of Lucian (in Philopoeud. tom. ii. p. 552.) Amphilochoi was regarded by the superstition and credulous multitude as a great prophet, and his oracle maintained its reputation. Gen. Dict.

AMPHIMACER, a foot in the Ancient Poetry, consisting of three syllables; the first and last whereof are long, and that in the middle short. The word is derived from the Greek ἀς, cirum, and μακεσ, longus, by reason both extremes are long.

Such are the words ἀσίνθη, ἀσίνθης, ἀσίννεσ, &c. This foot in the Greek is called tetracotis, and sometimes τετρακοτική.

AMPHIMACUS, in Entomology, a species of Papilio. Wings indented, above, black, with a broad bar of shining blue in the middle. Beneath, anterior wings white, posterior wings cincereous. Inhabits India. The body is black. Wings above entirely black except the interrupted bright blue that extends towards the anterior margin. Beneath, from the base to the middle of the wings white, variegated with brown marks; on the posterior pair behind a large white spot, and seven small brown ones, with whith pupils and circles along the posterior margin. Fabricius.

AMPHIMALLIA, or Amphimallum, in Ancient Geography, was a town of the island of Crete, according to Pliney, situate on the north side, and of Sydonia. It gave name to a gulf in the same part of the island. Sonnini supposes, that the Amphimallum of the ancients is that narrow gulf, which is now formed by Cape Malea on the west part, and Cape Trepolaris on the east, and which penetrates nearly two leagues inland. Others place the harbour of Amphimallum between Suda and Retumo, where is only a bad haven. Sonnini's Travels in Greece, p. 243 Olivier (Travels, vol. ii. p. 198.) informs us, that the ruins of Amphimallum are still visible half a league from the sea to the foot of the gulf of Suda. These ruins are now the foundation of a Greek monastery.

AMPHIMALLUM, from αμφι, and μαλλος, a fleece of wool, in Ecclesiastical Writers, amphihitham and amphiboum, from αμφι and βαλλω. See Amphiballus.

AMPHIMASCALOS, in Antiquity, a tunic or coat worn by the Greeks, with two short sleeves, so as to cover part of the arm to the elbow. In general the tunics of the men and women had not sleeves like these parts of modern dress. The coats of freemen were amphimascalos, or had two sleeves; those of slaves only one, and were called επαραμπασκαλος.

AMPHIMEDON, in Entomology, a species of Papilio, with wings uniformly brown, the anterior pair radiated with white: five connected red spots in the middle of the posterior pair, with white lunules. The body is large, brown; anterior part of the thorax variegated with three red lines. From Amboyna. Fabricius.

AMPHIMONE, a species of Phalaena, of the Bombyx family. Wings entire, pale ash-colour, with two black streaks, and a fulvous dot in the middle of the anterior pair. Described by Fabricius from a specimen in the cabinet of Sir Joseph Banks. Inhabits Terra del Fuego. The antennae are greatly pectinated, body hairy, two yellowish lines on the thorax, abdomen with black belt, a single straight streak on the posterior wings beneath. Fabricius.

AMPHINOME, a species of Papilio, with indented wings, above black, clouded with numerous blue marks: an oblique white bar across the anterior wings; beneath the lower wings radiated with red. A native of South America. Linnaeus.

AMPHINOME, in Mythology, one of the 50 Nereids, according to Homer.

AMPHION, in Entomology, a species of Hesperia. Wings entire, blue, margins black: beneath cincereous, with black ocellated spots; posterior wings, with red lined marks, black points, and golden characters. A native of Germany. Fabricius.

AMPHION, in Ancient History, the twin brother of Zethus, was the son of Antiope, the greatest beauty of Greece, by Epaphus, king of Sicily, or, as Homer says, by Jupiter. Having seized the crown of Thebes, in Sicily, from Lagus, the father of the unfortunate Oedipus, he called the metropolis of the Theban government, or at least the lower city, Thebes, in honour, as it is said, of Thebe, their aunt by the mother's side. Homer says, that to secure the crown which he had usurped, he inclosed the city of Thebes with a wall, fortified with seven gates, and a number of lofty towers at a convenient distance from each other. Homer, however, does not say a word of the miraculous powers of Amphion's music, nor of his building the wall, as fables reports, by the sound of his lyre. Pausanias and Plato convey in relating, that he acquired his musical reputation from his alliance with the family of Tantalus, whose daughter Nerissa, he had married; and both these authors say, that Amphion learned music in Lydia, and, bringing it from thence into Greece, was called the inventor of the Lydian mode. As to the effect of music in building the wall, we may observe, that he might probably captivate the people to carry on the work, by diverting them with the music of his harp, as well as persuade them by his eloquence, which contributed to induce them, though in a state of barbarity, to live feebly and harmoniously together. We learn from Horace (Ars Poetica, i. 391.) that Amphion, after the example of Horace, employed the united powers of music and philosophy in civilizing the Thebans.

"Silentes homines facere interpresque deorum/ Cadibus et vienis facio ductum Orpheus; / Dictus ob hoc lenire tigres rabidiformes leones./ Dictus et Amphion, Thebanum conditor arcis,/ Saxa movere lono testudinis, et precce blandanum./ Ducere quo velvet. Fuit late desperia quondam,/ Publica privatis fecernere, facra profanis;/ Concebait proibibere vaga: dare jura maritius;/ Oppida mollii: leges incidere ligno;/ Sic honor et nomen divinis vatibus atque/ Carminibus venit."

"The wood born race of men when Orpheus tamed,/ From aorns and from mutual blood reclaims,"
The priest divin was fabled to affume
The tiger's fierceness, and the lion's rage.
Thus rose the Thian wall; Amphion's lyre,
And soothing voice, the l'it'ming homes inspire.
Poetic wisdom marked, with happy mean,
Tubule and private, sacred and profane;
The wond'ring joys of lawless love supersed'd;
With equal rites the bonds of Hymen blest'd;
Plain'd future towns, and instituted laws;
So ver'e became divine, and poets gained applause."  

Francis.

AMPHIPAGUS, in Ancient Geography, a promontory of the island of Coronea, to the north west.

AMPHIPEUMAS, æffppæf³mas, among Ancient Physicians, a great degree of species or different respirations.  

AMPHIPOLES, from απ'd and πολ.'s city, in Antiquity, archons, or chief magistrates of the city of Syracuse.

They were first established by Timoleon, in the 100th Olympiad, after his expulsion of Dionysius the Tyrant. They governed Syracuse for the space of three hundred years; and Diodorus Siculus affirms us they subsisted even in his time.

AMPHIPOLIS, in Ancient Geography, a city of Macedonia or Thrace, which was an Athenian colony, on the river Strymon, which separated Macedonia from Thrace; but it is not certain on which side of the river it was situated. Pliny places it in Macedonia, but Sylacax in Thrace. Thus by the editors (ib. iv. p. 320.) reconciles this difference of opinion by observing, that it was washed on two sides by the river Strymon, which was divided from its mouth into two channels, in the middle of which the city stood, where its name Amphipolis. i.e. απ'd and πολ.'s; and on the side towards the sea there was a wall built from channel to channel. M. d'Anville gives another etymology of the name, and says, that it signifies a town belonging to two countries, viz. Macedonia and Thrace. The ancient name, according to Herodotus, (l. vii. c. 114.) and Thucydides (ubi supra) was Αμφιπόλις, or the τούτους; and it was called Ακρίς, Εύλιος, whence the Turks have formed Τιμπλιβ, Μύρικα, Χρηματίμας, Χρηματίβλεντας, Χρηματίβλεντας, Κρημπόλα, or Κρημπολίβια. The inhabitants were denominated Amphipolitani. Livy. It was founded thirty years after the defeat of the Perians in Greece; and Miltiades conducted a colony into it. Philip, king of Macedonia, drove the Athenians from Amphipolis, and permitted the inhabitants to form a republic. The Athenians, however, always considered it as belonging to them; and Baphodes, the Lacedaemonian general, took it from them. Nevertheless, Philip recovered it, and promised to relend it to the Athenians; but when he became master of it, he obtained a surrender of it by a treaty of peace.

AMPHIPOLIS was also a town of Syria, on the Euphrates; its Syrian name was Τέρμιδα. It was either founded by Seleucus, or enlarged and adorned by him; and he changed its ancient name. It is the same with the Thasius of Pliny.

AMPHIPPI, in Antiquity, those who practised riding on two horses, by jumping from one to the other.

The word is Greek, απ'dππολπία; they are sometimes also called ταπάρια ψάντα, and sometimes by corruption, επίτερον. The appellation was given to a sort of cavalry in the Grecian armies, who, for their convenience, had two horses a piece, on which they rode by turns, leading the other.

AMPHIPORÆ, from απ'd and πολ.'s, πρώτα, were ships which had prows at both ends, that no time might be lost in turning them, and also on account of the rapidity of streams, and narrows of channels.

AMPHIPROSTYLOS, or AMHIPROSTYLE, in Ancient Architecture, is characteristic of a particular kind of Temple, which had a Porch of four columns, crowned with a Pediment in front, and another of the same form in the back, front, or rear. The porch in front was denominated the Προοσα, and that in the rear the Ποιιασιον. The word is composed of απ'd both, προ before, and ποιιοι column, and signifies "columns in both fronts."  

Vitusnus, in the fifth chapter of his third book, describes seven species of temples differing from each other in the number and arrangement of their columns, of which the amphiprostyle is the third. It is distinguished from the first and second species, by having columns in both its fronts, and from the peripteral and pseudo-peripteral kinds, by having only four columns in each front, and more especially by not having any on the flanks. It is remarked by Sannazato that the Christians never made entrances in the rear of their temples with Porches or portries, similar to those in the front; and for this reason the French have no word to express the polis of the Latins, as distinguished from the pronaos, which they denominate the "Porch." The same remark is true with regard to the English, and probably to all other Christian nations.

AMPHISA, in Ancient Geography, a river in Greece in Melenia, which discharged itself into the Iapygia, according to Paulinius, l. iv. Melenia. c. 23.

AMPHISO, in Mythology, one of the nymphs called Oceania.

AMPHISBÆNA, in Zoology, the name of a genus of serpents in the Linnaean system, in some respects allied both to that of Anguis and Lacerta; like the Celia it is defective of scales, but its skin appears completely annulated, or marked with numerous circles that surround the body and tail. This is the Linnaean character of the genus, to which may be added that the body is equally smooth and cylindrical; and the tail obtuse, and scarcely to be distinguished from the head.

Gmelin enumerates five species of this genus, viz. fulgino£, varia, magnifica, flavus, and alba.

1. Fulgino£. Kings of the body two hundred; of the tail thirty. This species is white, variegated with black or dark brown, and the head is without spots.

2. Varia. Variegated with white, black, chestnut and grey.

3. Magnifica. Variegated with purple, violet, and yellow; head yellowish, and a purplish streak over the eye.

4. Flavus. Variegated with white and brown; head yellow.

5. Alba. Kings of the body two hundred and twenty-three of the tail fifteen. The head of this is accelerated on the fore-part, and narrowed into an obtuse front. Found near ant-hills. Gmelin has relied chiefly on Seba in determining the characters of these species; yet it may be doubted whether that authority is sufficient. The number of annular rings round the body and tail, and which Linnaeus considered as the best specific distinction, is only mentioned in two species, fulgino£ and alba; the characters of the others, being only taken from the variations in their colours, are not satisfactory. The five kinds mentioned by Gmelin are natives of America.

Dr. Shaw terms to have considered the three species, varia, magnifica, and flavus, as varieties of fulgino£; for he observes, that only two species of this genus, amosphedra, have hitherto been discovered, viz. alba and fulgino£.

A. alba is from fifteen to eighteen inches, and sometimes two feet in length; the colour white, but sometimes inclining to pale yellow or brown; the head very short, the eyes very small; the mouth of moderate width, the teeth short, strong, not very sharply pointed, and constricting a single row of about fourteen or sixteen in each jaw; the tongue very large broad, thick, flat like, and bind only at the tip, the surface of the
the bafe appearing scaly. This is found in woods preying on insects, worms, &c. It is a harmless animal, but it is said, that on handling it for some time the skin becomes affected with a slight itching, accompanied by small pustules, owing to an aeromonia moisture exuding from the animal. 

A. fuliginosa is rarely so large as the preceding species, which it resembles in its manner, and is equally harmless. The Count de Cepede observes, that above the vent is a row of small perforated papillae, similar to those in many of the lizard tribe. The skin of the amphibia is remarkably strong and tenacious, and of a smooth and glossy surface, and it is probable that they are enabled with great facility to perforate the ground somewhat in the manner of earth worms, in order to obtain occasional supplies of food. Dr. Shaw.

**Amphibia aquatica**, a name given by Bertrutius, Albertus, Genser, and other authors, to that long, slender worm, called by Aldrovandus and others, the *fute aquatica*, &c. This is the *Corolis aquatium* of Linnæus. See *Gor-dious*.

**Amphischis**, formed from *aqua*, about, and *sero*, shadow, in Geography and Astronomy, the people who inhabit the torrid zone.

They are thus denominated, as having their shadow turned sometimes one way and sometimes another, i.e. at one time of the year to the north, and at another to the south.

**Amphismila**, or *Amphismela*, an anatomical knife, edged on both sides.

The word is formed from *spiss*, string, on both sides, and *vuln*, knife.

**Amphissa**, called by Herodotus *Amphicla*, in Ancient Geography, the chief city of the Ozzolian Locrians, about 15 miles to the west of Delphi, situate on the river Evenus, and so called because it was surrounded by mountains, according to Steph. Byz., but Panuasia deduces the origin of the name from Amphissa, who had a monument erected to her honour in this place. On the summit of a hill near the town was a temple of Minerva, with her statue in bronze. The people of the country thought this was one of the spoils of Troy, but Panuasia represents it as an ancient Greek work. Amphissa was taken by the Phocians, and destroyed with the rest of the Phocian cities in the holy war, and when it was rebuilt, Panuasia says that it took the name of *Opilida*, if the houses of the Phocians, which is just to have been the name of a town of Magna Graeca, at the mouth of the Sagra, in the farther Calabria, situate between Locri and Caulonia, and now called *Rocella*; but some have doubted the existence of such a city.

**Amphitape**, in Antiquity, a kind of carpets, or clothing, having a felt warm kape on each side.

**Amphitheatre**, in Architecture, is an edifice of an elliptical form, consisting externally of two or more stories of open *Arcades* with a number of interior *Gal-laries* and arched passages, fulfilling and serving as communications to several ranges of seats, rising one over another round a spacious area, called the *Arena*, on which the combats of wild beasts and other spectacles were exhibited.

The word is derived from *ampst*, around, and *stator*, theatre, so that amphitheatre signifies a place in which the spectators, ranged circumferentially, saw equally well from every side. It was also called *astethion* by the Latins.

The history of amphitheatres, though it occupies no remote or extensive period of time, is intermingled from its peculiar connection with the manners of the ancient world, and those which succeeded it, the establishment of the Christian religion; the rife and splendour of these edifices being occa-

**fioned by the ferocious barbarity of the former, and their subliterate difeuse and run by the milder character of the latter. They are undoubtedly of Roman invention, in the latter ages of the republic; yet because the combats of *Gladiators* were, among other spectacles, exhibited on the *Arena*, their origin has been ascribed to the *Etrurians*, with whom it is said they were first edifices set apart for such combats, and with them descended from that people to the Romans. "Religion," we are told, "in *Etruria* prevailed at these games, and elevated amphitheatres." A sensation that is certainly unfounded. Among the Etrurian gladiatory combats were exhibited at feasts as well as at funerals, and probably they were no otherwise religious institutions than as the occasion made them so, like the foot-races and other contest with which the ancients honoured the dead. In the earliest times they were presented before the funeral pile, or at the tomb of the deceased, and afterwards in the squares and open places of cities, as we learn from Vitruvius, who informs us that the Italians made the intercolumns of their *Forums* more spacious than those of the Greeks, "because, by ancient custom, the shows of gladiators were usually given in the forum." This continued to be the practice of the Romans for upwards of 200 years after the introduction of those combats among them, from whence it may be inferred, that neither the Etrurians nor the Romans had any edifice like an amphitheatre till the period we have mentioned; and it is evident that such edifices were not so necessary for the exhibition of gladiatory combats, as to be religiously appropriated to them from time immemorial.

The Romans had an inordinate passion for spectacles of every kind, and especially for such as were fanguinary and terrible; a disposition which their rulers politically encouraged, as tending to preserve that unconquerable spirit which made them masters of the world. In the year of Rome 490, the first gladiatory combats were exhibited in that city not long after the successful termination of the Samnite war had extended the Roman dominion not only over Etruria, but the whole peninsula of Italy. And in the year 503 wild beasts were introduced among the public spectacles of Rome, by Lucius Metellus, who brought into the *circus* the elephants he had taken from the Carthaginians in Sicily. These two kinds of shows were so conjoined to the tale of the Romans, that they were soon converted into engines of political influence, and the candidates for popular favour vied with each other, in exhibiting them with the greatest splendour and expense. Gladiators were trained to fight as to a profession, and hundreds of them were compelled to butcher one another in the *forum*, while every savage animal that could be procured from the forests of Africa or Asia was brought to parade in chains, or be limited in the *circus*.

In the time of Pompey and Cæsar the combats of beasts were given with a magnificence which we read of with astonishment, though far inferior to those presented by the emperors; and it is to these combats that we owe the invention of amphitheatres, as the name of *theatre minatoria*, or the *theatre for hunting*, by which they were at first denominated, sufficiently proves. It was found that these spectacles could not be seen equally well from every part of such an extensive place as the circus, interrupted as the prospect was by the *Metae*; and other buildings on the Spina, nor could they be gazed on with the same safe and security as the combats of gladiators; for in the games given by Pompey the elephants made efforts to break down the barriers which confined them in the circus. These circumstances induced Cæsar, when not long after he entertained the people with similar
familiar games, to remove the mere, and to surround the arena of the circus with a ditch, i would probably suggested the expediency of constructing edifices, in which the people might enjoy their favourite diversions without intermission or danger. This purpose amphitheatres were peculiarly adapted to answer; and, being equally convenient for gladiatory shows, they afterwards became the common theatre of both.

It is believed that the first building like an amphitheatre was formed of those curious machines constructed by Caius Curio, one of the partisans of Caesar, for the games he presented at the funeral of his father. Curio erected two costly amphitheatres to be built of timber, in the usual semi-circular form, and placed back to back, in which he amused the people for several days with theatrical diversions till noon; when the scenery was removed, and the two theatres, with an immense crowd of people in each, were wheeled round till they met, and formed an amphitheatre, in which gladiators contended on the arena till evening. This information we have from the elder Pliny; who, although he applauds the invention, excites against the temerity of the man, who dared to place the governors of the world in such imminent danger. How this was accomplished we are not told, and how much the relation may have been exaggerated by Pliny, it is impossible to know, as the fact is not mentioned by any other writer; nor is it possible to determine whether this ingenious piece of machinery gave the first idea of an amphitheatre, or was itself suggested by some amphitheatre that had been previously constructed. Be this as it may, Drusus Caesar, a few years after, erected a hunting theatre of timber, called indeed an amphitheatre, because the seats were placed round it without faces, in which he exhibited both the combats of wild beasts and of gladiators. This edifice, from the words of Dio, above quoted, has a fair claim to be considered as one of the first fabrics of the kind.

From this time, during the reign of Augustus and the succeeding emperors down to Vespasian, many other amphitheatres of timber were erected in Rome and in the provinces; but not any of these, except one by Statius Taurus, in the time of the first-mentioned emperor, which does not appear to have been held in much estimation, as it was seldom used in the splendid processions subsequently exhibited; nor could it be entirely of stone, as it was destroyed by fire in the reign of Nero. The timber amphitheatres were sometimes only temporary structures, raised and taken down as occasion required, though some of them were fixed and embellished as permanent buildings. Augustus, whose policy induced him to encourage every public amusement that interested the people, is said to have constructed several. Caligula began one, but did not live to complete it. Nero, who delighted in gladiatorial combats, also erected an amphitheatre of timber, which was near a year in building. This is described by Tacitus as a sumptuous fabric, and capable of containing a great number of persons. In the time of Augustus, Herod of Judea built amphitheatres at Jerusalem and Caesarea. In the reign of Tiberius a large one was erected at Fidenza, a town in the vicinity of Rome, which suddenly fell while the games were exhibiting, when, according to Tacitus, upwards of 50,000 persons were either killed or dangerously hurt. There was another at Placentia, celebrated as the largest in Italy, which was burnt in the war between Vitellius and Otho.

Accidents like those at Fidenza and Placentia, both in theatres and amphitheatres, had undoubtedly been frequent in Rome, as well as in the provinces, and turned the public attention to structures that were safer from conflagration, and of strength sufficient to sustain the multitudes by which they were crowded. With regard to theatres an example had been given by Pompey, who first constructed a theatre of stone, and drew upon himself the censure of the hatriceis for thus luxuriously deviating from the simplicity of ancient practice. Statius Taurus, as already mentioned, had also erected a stone amphitheatre, though it appears to have been of little consideration; and Augustus, who, as it is said, intended to have constructed one of more ample dimensions in the centre of Rome, on the very spot where the coliseum was afterwards erected, did not carry his design into execution. This was referred for Vespasian and Titus; the former began the Flavian amphitheatre in his eighth consulate, which was completed by his son Titus, and is deservedly celebrated as a prodigy of building among the ancients. Martial is lavish in its praise, and Caillidorus affirms, that the expense of it would have built a capital city. At the solemn games exhibited when this fabric was dedicated, 5000 wild beasts, according to Eutropius, and 9000, according to Dio, were destroyed on its arena. When the hunting was concluded, the arena was suddenly filled with water, in which aquatic animals were made to contend; and afterwards a sea-fight was exhibited representing a conflict between the Corinthians and Corelyrians, whose wars are related by Thucydides. If Martial may be credited, people from every part of the world crowded to Rome to be present at these games. This stupendous pile has been, from time immemorial, called the Coliseum, according to some authors, from a colossal statue of Nero, which floated at a small distance from it; but more probably from its colossal size, when compared with other buildings.

The Flavian amphitheatre became the model of many others that were subsequently erected by the emperors, or by the people of different countries desirous of sharing in the diversions of the imperial city. Of these the most remarkable were at Capua and Verona in Italy, at Nimes in Languedoc, at Pola in Istria, and in Spain. The velluses of others are said to be seen at Alba, a small city of Latium, and at Otrocol, a city of Umbria; the remains of one are found near the Carigliano, formerly the river Lyon. At Pizzazzuli some of the arches and cells of another are still existing. There are velluses of one at the foot of Mount Caflin, near the house of Varro, and of one at Paelium in Lucania; of others at Syracus, Agrigentum, and Catania in Sicily; at Gortina and Ceratonia in Andia, and at Argos and Corinth in Greece. In France there was one at Arles, and one at Astin. The latter, it is said, consisted of four stories, like the coliseum. There are also velluses of amphitheatres in Britain, near Sandwich in Kent, at Caerleon in Monmouthshire, (the Itca Silurum of the Romans), and in other places.

But it cannot be supposed that all these amphitheatres could deferve to be named as edifices, when compared with the original model, "the Flavian Amphitheatre." Some were little more than natural valleys, with benches cut in the declivities of the surrounding hills like the amphitheatre at Corinth. In some places benches of stone were placed on the declivities of two hills, and the elipias completed by works of masonry at the extremities, like that of Gortina in Andia. Some were elliptical excavations with benches of turf, like that near Sandwich in Kent, and most of the Campanian amphitheatres (for such was the general rage for amphitheatrical diversions, that fearlessly any camp, or fixed military station, was without its amphitheatre of turf or timber). Some were partily excavated and partly constructed with masonry, like the amphitheatres of Paelium and Caerleon; some had their exterior circuit constructed of masonry, and the seats and flares of timber, like that of Pola
in Idris; while others arose on a similar plan, and with nearly the same ornamentations of architecture as the Flavian amphitheatres. Such were the amphitheatres of Capua, Verona, Nimes, and Antium.

In these various structures, the combats of gladiators and the battles of beasts continued to be exhibited for near 250 years, in which time an incredible number of beasts and men were destroyed, and not unfrequently were they sanctified by the blood of the early Christians, who were devoured at a glance, or compelled to fight, for the gratification of the Pagan populace. At length Providence ordained that Christianity should become the religion of the state, and its lenient spirit gradually changed the barbarous amusements of the ancient world for others more congenial to the humanity of its doctrines. In the year of our Lord 337, Constantine the Great prohibited by law the exhibition of gladiatorial combats in the colosseum, but they were not finally abolished in Rome till the reign of Honorius, who, in the beginning of the fifth century, banished all professional gladiators out of the country. This was occasioned by the murder of a monk named Thelemaucus, who, on some solemn day, was destroyed by the people, while he was exhorting them to desist from their fangorous diversions. The combats of wild beasts, however, continued both in the eastern and western empires for some time after these events, but gradually became less frequent and less magnificent, till in the course of the sixth century, they were everywhere totally abolished; and amphitheatres being utilized for these purposes, were, in a great degree, abandoned to the depredations of men and the injuries of weather. At Verona and other places, during the middle ages, they were sometimes used for judicial combats and for tilts and tournaments; but these customs having also past away, they have since fallen into general neglect, and consequent ruin.

It is not easy by a verbal description to convey an adequate idea of the construction of an amphitheatre, and the means by which such a number of persons could have entered and egressed without confusion; but, with the assistance of the sectional diagram in Plate 11. of Architecture, and an occasional reference to the plans and sections of such amphitheatres as yet remain, these particulars may be easily understood. We have already observed, that the exterior circuit consisted of two or more stories of arcades; these varied in number according to the extent of the amphitheatre. On the ground floor they opened to an equal number of arched passages and galleries, tending like radii towards the arena, and were intersected by two or more arched passages, or corridors, that surrounded the whole edifice, and gave an uninterrupted communication to every part. Sometimes in the middle of the fabric there was an intermediate gallery, which, like those in the ground floor, surrounded the whole, and served as a common landing-place to all the galleries that led to the higher galleries, as in the amphitheatre of Nimes; and sometimes each gallery had its direct landing, without any gallery of general communication, as in the amphitheatre of Verona. Of the radiating passages the four which were placed on the diameters of the ellipsis were usually made wider than the rest, and were also, by lateral arches, laid open to the adjoining passages on either side of them. Those two which were placed on the shorter diameter were the principal entrances, by which the emperor, the senator, and other dignified personages were conducted to their seats on the Podium. The other two led directly into the arena by large arched gateways, and were appropriated to the beasts and gladiators, who probably entered in some consecrational manner, that required more width and elevation than the ordinary inlets. These interior gateways still exist at the extremities of the ellipsis in the amphitheatres of Verona and Padua, and in the former interrupt the continuity of the lower benches. Through the other passages the different orders of the people passed to the galleries which led to their respective seats; and as every arch in the exterior circuit was numbered, and also the Curt, which separated the people into classes, in the manner we shall hereafter mention, every one knew the passage which would conduct him to the place assigned by the laws of the amphitheatre to his rank and condition. Those persons whose dignity entitled them to a seat on the podium passed forward to the florcat A, and ascended to the doorways that opened upon that distinguished place. Those of the Equestrian order, or of such rank as entitled them to a seat in the division of benches next above the podium, ascended by the staircases B; while the other classes made use of the staircase C, which arose to the floor of the intermediate landing or corridor E; and then either ascended by the staircase F to the second division of benches, or by the staircase D to the second exterior corridor, and from thence by the staircase G to the third division of benches, and higher still by other staircases in a different direction, to the third exterior corridor, which communicated with the uppermost division of benches. Those different staircases were respectively opposite to different arches, and approached by different passages, though, for the sake of perspicuity, we have represented them in a single diagram.

The doorways, which opened from the staircases and passages, were denominated Vestitoria. The number of these varied, according to the size of the amphitheatre, and the number of exterior arches. In the amphitheatre of Verona there were 60 of them, placed in four elliptical rows alternately over alternate radii, so that the first and third were on one radius, and the second and fourth on another. In the highest circuit there were 16, in the next to it 16, placed at equal distances, in the next to that 15, but not all at equal distances, as the Balconies over the great gates of entrance to the arena occupied the place of two at the extremities of the ellipsis; but the number was supplied by two over the shorter diameter, where otherwise there would have been but one. On the lower line there were 15 which opened upon the podium. The number of benches between the several ranges of vomitories was unequal, and probably was not determined by any positive rule. The benches were about two feet four inches broad, and one foot eight inches high. Before every range of vomitories one bench was omitted, which left a platform four feet eight inches broad, (having a wall on the ascending side three feet four inches high) which encompassed the whole, and served as a communication to all the vomitories on the same level. These platforms were called Precincts, and the fronts of the walls, which bounded them on one side, were denominated Beils. The latter were sometimes embellished with Mosaic work, and surmounted by Ballustrades, to protect those from falling, who were seated on the benches immediately above them. The podium was a platform that surrounded the arena, more spacious than the precincts. Opposite to every vomitory a flight of stairs, two feet six inches wide, descended from one precinct to the belt or balustrade of the other. In the top of the benches, and close to the edges adjoining to the stairs, small channels were cut, by which the rain-water or urine flowed from bench to bench, till it reached certain pipes or conduits that conveyed it to the drains below. As these stairs radiated from the uppermost bench to the podium, they, with the precincts, divided the whole interior concavity into wedge-like
like portions, in which the spectators were seated according to their rank. There were the Cunei, so frequently mentioned by writers, and which do not appear to have been well understood, has the term as been applied to very different parts of the amphitheatre. That the people both in the theatres and amphitheatres were placed in wedge-like divisions, we learn from various passages in ancient authors. Apuleius says, such spectators as could not get places on the marble benches, but stood in the passages or on the stairs, were "unxed," and Tacitus informs us, that when Nero placed soldiers in the amphitheatre to applaud his performances, they were distributed through all the "wedges," that every part might ring with applause. With regard to the laws by which the people were arranged in amphitheatres, our information is very imperfect; but we may presume the same regulations applied to amphitheatres and theatres, as far as the forms of the edifices coincided. We know that persons of the highest dignity had their places on the podium, and in the middle of one side of it was the emperor's Pavilion, called the Suggestum. Several of the wedges were alligned to the senatorial order, as the podium was not sufficiently spacious to contain all the senator and other dignified persons. Other Cunei were allotted to the Equesrian order, with whom the Tribunes, both civil and military, took their seats, of which the number was very great, as every man that had once filled the office retained the rank. The Liberti were cautiously excluded from these orders, and even the Legati were prohibited by Augustus from sitting among the senators, because some Liberti had been sent in that character. The married men had places distinct from the unmarried. The young men had their appropriate seats, and their tutors fat in other seats near them, that they might observe their behaviour. The attendants and official servants of dignified persons had seats constructed of wood in the higher parts of the building. The places for the veillats were on the podium, and the princes and ladies of high distinction frequently sat with them, but the front of the gallery, which rose above the gradations of benches, was especially appropriated to the women, where they sat on chairs, and the lowest order of the Plebeians stood behind them. These were the leading distinctions of rank and classes; but for popular accommodation different wedges were, in all probability, allotted to different tribes. The Cunei were all numbered as before mentioned; but it is a mistake to imagine that every man had his particular seat numbered and ticketed, for sometimes all the Cunei were filled, and the precincts, and stairs so crowded, that many persons who were entitled to places within certain precincts, were obliged to ascend to the gallery, and mingle with the plebeians behind the women. By such arrangements as we have specified, which relate chiefly to the Roman amphitheatre, and which undoubtedly were varied in the provinces, as the ranks and classes of people differed from those of Rome, all confusion and disorder were avoided. The general care of the amphitheatre was given to an officer named the Vollicus Amphitheatri, and the Cunei were under the direction of other officers, called Locarii. The strictest attention was exerted to prevent any one from occupying a place to which he was not entitled; and if a man was wrongfully compelled to quit a seat he had taken, he conferred himself as degraded and injured. See Plate VII. of Architecture.

The front of the podium, next the arena, was defended by strong netting, and rails of iron, armed with spikes, and also with strong rollers of timber which turned vertically, to prevent the hunted animals from leaping over. The emperor's pavilion was lined with felt, and otherwise highly embellished. The seats of the principal persons were covered with cushions, the marble benches in general with boards, and over all an awning of woollen of different colours, called the Velum, was occasionally stretched to protect the spectators from the sun and rain, which, by means of pulleys and cords, could be let down and drawn up at pleasure. These articles, which may be denominated the furniture, were almost the only combustible parts of the fabric, and in the Flavian amphitheatre they were, at different times, destroyed by lightning, and particularly in the reign of Marcellus, when so much damage was done to that building, that the public games were performed in the circus for several years after.

It has been asserted that amphitheatres had an underground story, consisting of numerous dens and cells, in which the beasts were kept for the games; but whoever considers the place which, on the ground story, was necessary for the ingredes and ereges of the people, and the difficulty of getting light, however small the quantity requisite, and of gaining convenient entrances to these subterraneous places, to pay nothing of the intolerable fench that the food and carcase such numbers of animals would occasion, will at least acknowledge this to be improbable. As the coliseum has not been examined to the foundations, we can pay nothing with certainty with regard to the subterraneous parts of that fabric; but the amphitheatre of Verona was cleared in many places by Maffei, and nothing found but drains (see Plate VIII. of Architecture), which received the rain and other waters conveyed from above by channels in the staircases. Among the piazzas, and under the stairs on the ground story, are many cells and rooms that were probably prisons for criminals condemned to fight, or be devoured, in which the beasts might occasionally be flabled; but there is nothing to justify a conjecture that animals were constantly kept there. On the contrary, we learn from a passage in St. Chrys. from, that the beasts intended for the public games were kept in the envions of cities, and Procopius makes particular mention of a spacious place in Rome called the Vivaarium, appropriated to that use. It appears, that Liplius and others were led to conjecture that animals were kept under the amphitheatre, by some passages in ancient authors, which describe them as coming from subterraneous places into the arena. But it was sometimes the practice to give novelty to the games, by erecting pieces of machinery on the arena, representing mountains, on which real trees were planted, and under them hidden caves were formed, from whence the animals rushed out to encounter the combatants, or to devour their victims. It was probably to these caverns that such ancient authors alluded, and not to any permanent caverns constructed under the amphitheatre.

Of the amphitheatres which merit particular notice, the coliseum stands foremost in order of time and in magnitude. It was an ellipsis, whose length was about 615 English feet six inches, and the shorter 510 feet. The longer diameter of the arena was about 281 feet and the shorter 176 feet, leaving a circuit for the seats and galleries of about 157 feet in breadth. The external circumference, when complete, was about 1770 feet, covering a superficies of about 246,051 square feet, or somewhat more than five acres and a half, and could barely be included in a parallelogram of seven acres. There dimensions are taken from Deltet, who appears to have examined the remains of this edifice with great care, and to have corrected many mistakes of Serlio and Fontana.

The external elevation of the coliseum consisted of three stories of arcades respectively embellished with columns of the Doric, Ionic, and Corinthian orders; and an inclined
**AMPHITHEATRE.**

**PILASTER** of the Corinthian order that ascended to the uppermost cornice. The first story of arcades was raised four Reps, or about three feet 6 inches, above the ground, and the bases of the columns stood on the pavement. In the two superior stories the Piers and columns were elevated on stylobates, or continued Pilasters, which served as PARAPETS to the corridors. The Pilasters were also raised on a stylobate, in which were the windows of an intermediate gallery, and in every second inter-PILASTER was another window that lighted the highest gallery. The building was crowned by a cantalifer cornice perforated with square holes, three in each inter-pilaster, through which the upright pieces of timber that supported the awning were fastened to a range of CorBELS about the middle of the pilasters. These several stories of columns and pilasters appear to have been continued, without break or interruption, round the whole external circuit; although on some media, engraved by Maffei, there is a representation of a Portico on one side, as if intended for the principal entrance. Whether this was ever executed, and in what manner, cannot now be ascertained; as there are no vestiges of such an additional structure, unless the mutilations over the central arch, on the side next the Imperial palace, may be considered in that light. Piranesi says, that in this place there was a bridge which communicated with the portico of Claudius. The height of the first story from the pavement to the top of the cornice is about 30 feet 6 inches, the second about 39 feet, and of the third about 38 feet, of the pilaster about 40 feet, and the whole height, including the Reps and blocking course, about 104 feet. See Plate IV. of Architecture.

On the ground plan the exterior circuit of the ellipse consisted of eighty open arches; the piers of which were about seven English feet, one inch broad, having three-quarter-columns in front of about two feet ten inches diameter; seventy-six of the arches were each about 3 feet 8 inches wide, and the four which answered to the four semi-diameters, about 14 feet two inches. These arches opened into a spacious double corridor, that encompassed the whole, from thence radiated eighty piazzas and staircases, which either led to two interior corridors and the arena, or ascended to the galleries and vornitories above. This double corridor is a grand and distinguishing feature in the plan of the coliseum. The first interior corridor was lighted by square apertures in the floor of the precipitation over it, and the corridor adjoining to the wall of the podium was probably lighted in the same manner. The second story had a double corridor over that on the ground story, connected by piazzas on the same level, with an interior corridor from whence flairs, on one hand, ascended to the second range of vornitories, and on the other to an intermediate corridor, which formed an Entresol or MEZZANINE-floor, over the interior circuit of the double corridor. In this mezzanine gallery, which was lighted by square apertures in the floor of the gallery over it, the flairs commenced that rose to the next story. The third story consisted of a double corridor, and must have contained the flairs that communicated with the galleries above, but it is too much in ruin to be accurately traced. In the interior wall are some windows, and the doorways or vornitories that opened on the uppermost conus of benches. The fourth story, in all likelihood, was that appointed for the women, and on the exterior wall there are vestiges of flairs that led to the fifth gallery, which we conjecture was that allotted to servants, and furnished with benches of timber. This gallery contained four staircases that led to a sixth floor, which was, perhaps, appropriated to those who managed the velum and had no other covering, and from this floor the four staircases continued to the parapet or blocking course, which crowned the exterior wall. These three upper floors were comprehended externally in the pilaster, but on their interior sides were finished so that we may, however, presume, that they were so constructed, probably of timber, as to give the least possible obstruction to the prospect, and perhaps nearly in the manner we have represented them in the perspective section, Plate V. of Architecture, which with the plans in Plate III. and the sections in Plate IV. will sufficiently explain the contraction of this edifice.

The exterior circuit of the coliseum is built of Travertine-flane, cramped together with iron without cement. The piers of the double corridor, the VouSOIRS of the arches, the heads of the partition walls and some BONDING of the front of the arches, are of the same kind of stone. The roof is of brick. The OFFSETS of the front walls are all made on the outside, so that its interior face is nearly perpendicular. Some of the internal walls have remains of ornaments in plaster, and in others they are lined with marble. The floors of the corridors are paved with small flat bricks and covered with a hard incrustation of STUCCO. The columns in the three floors and the pilasters are all of one diameter. The diminution of the columns commences from the third part of their height. In the first and second orders they are three-quarter columns; in the third order semi-columns; the VolUTES of the Ionic capitals, and the foliage and other embellishments of the Corinthian capitals, are only rough-hewn or BOSSED. All the mouldings except the imposts of the arches have the SOFFITS of their projections sloping upward or higher in front than rear, and in the same degree in the mouldings of the first order in those at the top of the edifice. This was frequently practised by the architects of antiquity, for the purpose, as many have conjectured, of giving the mouldings a greater apparent projection; but, as Deldogelius justly observes, if the mouldings have in reality their due projection, to make them appear larger is to make them appear false, and as the ancients in all situations gave the same degree of elevation, he thinks they had some other besides optical reasons for the practice. This edifice is not everywhere executed with exactness, many of the parts being out of level and larger in some places than others, perhaps the unavoidable conundrums of an immense number of persons working upon such an extensive building at the same time, and the unequal settling of so many piers, placed upon a foundation of seventeen hundred feet.

This amphitheatre, according to Jufts Lipius, was capable of containing 87,000 spectatones on the benches, in which number painted were added 23,000 for the galleries, staircases, and piazzas. But it will be found, that allowing two feet two inches each, and 21 inches each for each person, not quite so many as 50 thousand could be contained on the benches, with the addition of one floor of the gallery, and supposing all the precint and staircases to be filled. If the higher galleries were completely crowded, perhaps about 30,000 more might be added, in all about 80,000, a number sufficiently large without exaggeration.

A structure of such dimensions, and of such contrivance and ingenuity as that we have been describing, throws into obscurity the most magnificent works of the Greeks, and even when compared with the pyramids of Egypt, is more entitled to our praise, though less the object of vulgar admiration.
AMPHITHEATRE.

The pyramid, if it be considered as buildings, are the works of barbarous greatness, performed by ignorant labour, with little invention or ingenuity. The edifices could not have been constructed till the art of building had arrived at its highest perfection, and probably would never have been commenced if the arch had not been invented, and its powers determined both experimentally and mathematically some short space of time preceding. This, however, is conjecture. When this edifice was complete, its external aspect must have been strikingly grand, from its magnitude, its lofty, and simplicity of form; and the immensity of its interior concavity, especially when crowded with two or three persons, must have been in the highest degree imposing. Even now, when its benches and galleries are in ruins, and the arena filled with the accumulated rubbish of twelve centuries, its remains are contemplated with astonishment. Yet this magnificent edifice, if it was completed by Titus, was erected in two years and nine months, a wonderful example of the energy of the Romans! However, there is a tradition in Rome, that 15,000 men were employed upon it for ten years, which, if true, will place the time of its being completed far in the reign of Domitian, though it was certainly dedicated, and the first games exhibited within it, before the death of his brother. The coliseum has been pillaged greatly at various times, and most by Michael Angelo, who carried away near one half of the outward wall to build the Palazzo Farnese. Pope Benedict XIV. to stop these depredations, conferred on the ruins, and erected several altars, which on Fridays and Sundays were, before the French revolution, much frequented by devotes. A small building near the centre was furnished with accommodations for a hermit, who constantly resided there to guard the sacred relics from the rude hands of ignorance and impety, an office which we hope is still continued.

Of the amphitheatre of Verona only four arches of the external circuit were remaining at the beginning of the 18th century. They consist of three stories of unornamented rustic arcades, of which the two lower stories were embellished with rusticated pilasters and entablatures, assignable to no legitimate order. In the third story, there were no pilasters, but capitals are executed under the architrave, as if pilasters had been originally intended. On the top of the highest cornice there are two mutilated courses of rustici work, like the rest of the front, and the beginning of two plain pillars which has been superseded the commencement of a fourth story. The height of the three existing stories is about 90 English feet. The whole of the edifice was erected without any cement, the stones being nicely joined and secured by iron cramps, covered with lead. The longer diameter of the ellipse was 500 English feet. The shorter 450 feet. The arena was about 227 feet by 154. The exterior circuit was 1451 feet. The superstructures 204:930 feet, or four acres and nearly one third of an acre.

The exterior circuit was divided into 72 arches, opening into a single corridor, surrounding the whole fabric, from whence radiated 72 passages and flancases, intersected by two other surrounding corridors. The greatest part of these exist, and by consulting the plans and section in Plates VI. and VII. of Architectura, a clear idea may be obtained of their construction. The two grand entrances at the ends of the ellipse were considerably wider than the other passages, and nearly of an uniform width from one end to the other. The grooves in the jambs of the remaining external piers flew that the arches have been inclosed by gates; but whether this was the case at Rome and other places we know not. In the plan of the second story we find that the outward corridor was inclosed by eight staircases, which, rising on the concave passages, conveyed the spectators to the third corridor, and the uppermost segments. The benches of this amphitheatre, 45 in number, remain, but not in their original places, having been moved and altered; according to Maffei in the repairs, which the citizens of Verona, much to their honour, have from time to time made to this edifice. By contriving to make it occasionally useful as a place for public directions, they have preserved it from entire destruction. As we drew our general description of the precensions and curial, as well as many other particulars, from this amphitheatre, it is unnecessary to repeat them here.

In Plate VIII. of Architectura, we have represented the fewers made for the purpose of carrying off the water of the building. In the centre a well is observable which has no connection with the fewers, the use of which it is not easy to conjecture, unless it was intended to receive some mall or pool, erected for the purpose of supporting and working the velum. It is six feet wide and very deep. The time of building this edifice is unknown, some ascribe it to Augustus, and others to the emperor Maximilian, but Maffei supposes it to have been constructed by the citizens of Verona, during the reign of Domitian and Nero. The younger Pliny mentions a magnificent exhibition of gladiatorial combats at Verona, which gives probability to the conjecture of Maffei. About 50,000 spectators might have been crowded into this amphitheatre if the precautions and flancases, as well as the benches and gallery, were filled.

The elevation of the amphitheatre at Nimes consisted of two stories of open arcades and an Attic. The lower story is very lofty, the arches tall and narrow, extra-dosed, and separated by buttresses of two projections in the Gothic form, crowned by a Tuscan capital. A regular entablature encircles the building, and breaks in projection over every buttress. The second story is embellished with columns of the Tuscan order, seven diameters in height, over each of which the entablature breaks as in the order below. The arcades on this story were originally designed by a parapet that rose about three feet six inches above the floor of the corridor, formed of one large flat stone, with a sunk pannell, on which various designs were carved in bas-relief. On one which remains perfect, there is the representation of a combat between two gladiators. The reef have been removed and their place supplied by others of modern building. On the crown of the attic, directly over every pier, are two consoles, projecting 20 inches before the face of the wall, pierced with a hole about eleven inches diameter. Through this hole the pole which supported the velum was passed to the cornice, where it rested in a socket of the same dimensions and about fix inches deep. Other holes are found in the benches at corresponding intervals, in which other poles were fixed, and the velum extended by pullies from one pole to another, as represented in Plate II. of Architectura. This method of supporting the velum is more simple than Fontana's; but it makes only the upper ranges of benches, and leaves those where the perrons of highest rank were seated, exposed to the weather; yet if we conjecture rightly as to the use of the well in the Veronan arena, the velum might have been further extended by other cords attached to a mast in the centre. See Plates II. and IX. of Architectura.

The exterior circuit consists of 60 open arches, of which four at the extremities of the diameters are ornamented with
with pediments, and formed the grand entrances." The other 56 led to the passages and staircases, intersected by two corridors which encompassed the whole; one in the exterior of the building, and one near the wall of the podium which received light by iron grates from the arena. Another interior corridor or gallery, situated near the middle of the building, and nearly at equal distances of height between the two exterior flowers, forms the common landing of the staircases, and communicates both with the exterior gallery on the second story and the benches. The spectators ascended by 20 steps, each nine inches high and twelve broad, into the intermediate gallery, and by 20 more into the exterior one on the second story. There is a fifth gallery in the attic, which was approached by narrow stairs, wrought in the body of the wall, and probably intended for the velaria or servants who managed the velum. This amphitheatre had no covered gallery surmounting the benches and looking upon the arena, like those of Rome and Verona. All the radiating passages, as well as the four grand entrances, regularly decreased in height and width from the exterior corridor to the wall of the podium. It was the fame in the amphitheatre at Arles, as may be seen in the only passage remaining.

The largest diameter of this edifice, extending from east to west, is, according to Benouen, corrected by another account, about 148 English feet, the shorter diameter 338 feet, and the whole height 76 feet six inches. The superstructures were originally 32 inches in number, from 18 to 21 inches high, and from 18 to 24 in breadth. They were approached by three rows of vomitories, and were capable of containing about 1500 spectators. The flowers with which this fabric is constructed are of very small dimensions; sometimes cemented and sometimes fixed with iron cramps and lead. In several places the impost of the pier is a single stone, nine feet long, seven feet broad, and between two and three feet thick, and many of the stones, which form the benches, are eighteen feet long, two feet broad, and one foot eight inches high.

The vicissitudes of the amphitheatre of Nimes upon record, are so numerous that it is wonderful it should have been preserved so well as it now appears. In the year 472 it fell under the dominion of the Visigoths, who surrounded it with a ditch, built a castle within it, and converted it into a citadel. Part of the towers of the castle still remains; but the ditch was filled up in the 13th century. In 720 it was taken by the Saracens, who were driven from it in 737 by Charles Martel. After that time it was occupied as a fortress by the counts of Provence, who sustained a number of attacks in it, and built a church and a palace on the arena. The steep slope of the church is still in existence. In 1226 the knights, who then guarded the citadel, yielded it to Lewis the VIII., and in 1591 it ceased to be a fortress and was evacuated, though the houes continued. In 1533, that polished monarch Francis the First directed it to be cleared, which his subsequent misfortunes prevented from being done, and similar orders were given by the late unfortunate Lewis the XVI., but the work has not yet been completed.

Governor Pownall, who visited Nimes in 1757, says, that the amphitheatre was filled with houes arranged in streets, and looked like a little walled town. The galleries on the ground story and the intermediate gallery were converted into numberless miserable habitations, but the exterior gallery of the second story and that in the attic were perfectly unencumbered as in their original state. The date of this building is uncertain; but Mons. Menard conjectures it was erected by Antonine, which places it between the years 138 and 161.

What remains of the amphitheatre at Pula, in Istria, is a single elliptical wall of 72 arches, built on the declivity of a hill, having on the western side, which looked towards the sea, two arches arches, and on the opposite side only one arch. The wall,情形 being gradually lost in the slope of the hill. Above the arches there is an attic with a wall, with 72 windows, which surround the whole, and in it are grooves and corbels for the poles that supported the velum. At the haunches of the ellipses are four projecting buildings or towers, of two arches in height, having windows curiously filled with reticulated stone work in the attic, and doors and windows on every story towards the arena. The second story of the arches in these projecting buildings are closed up as high as the imposts, and the semi-circle is filled with upright mullions of stone, like the loopholes of an English barn. These towers have been called Counters by Serlio and others, but in all likelihood they were made for another purpose, as will be mentioned hereafter.

The whole of the exterior circuit of this edifice, excepting a very few yards of the parapet, was remaining when it was visited by Maffei, and appeared with extraordinary beauty when viewed from the sea. It was built with stones cramped together without cement. All the benches and other interior parts which were originally constructed of timber had long been destroyed. The larger diameter of the ellipse is about 416 English feet, the shorter diameter about 377 feet. The circuit about 1182 feet, the superstructures 1230/2 feet, or about two acres, and seven-eighths of an acre.

The Marquis Scipio Maffei, whole attachment to Verona, made him unwilling to believe that amphitheatres existed in other places, insisted on this inclosure, and pronounced it to have been a theatre only, assigning the slope of the hill to the benches for the spectators, and the opposite side which is nearly level, to the orchestra and stage. The two towers on the western side he supposed to have been constructed to represent the houses in the ancient scene, and the other two on the eastern side to have been built for the sake of uniformity only. All this appears highly improbable. The erection of such an extent of elliptical arches as half this inclosure, for the actors, would have been a waste of labour and expense to produce a work but ill adapted to its use, and if the towers had been intended to represent the fronts of houses, they would not have had doors and windows on both the upper stories, as well as the arches which gave entrance on the ground story; nor would such appendages have been erected on the opposite side for the sake of uniformity, when, in no point of view, they could be seen together. It is much more likely that the architect took advantage of the slope of the hill to place his benches on one side, and constructed them of timber on the other, and made the staircases to the higher ranges in the four towers, which conjecture renders them useful as well as uniform, on every side. It is said that villas of such staircases actually exist, but if they did not, the disposition of the apertures would justify the conclusion. There can be no doubt but the interior of this amphitheatre was filled with houses as high as the second story of arcades, and had a covered gallery on the attic story. If this be not admitted we may ask why was there a range of windows in the attic story, and for what use was the cornice or coping of the wall formed.
formed into a gutter, unless to receive rain water from a roof?

The amphitheatre of Paestum is one of those which had the area and part of the benches sunk below the soilage of the earth and the excavation, encompassed by other benches and an arched structure of stone. Next to Major's work on the ruins of Paestum, none the Italian work on the same subject, published at Rome in 1784, by the Rev. Father Paul Antonio Paoli, enable us to form a clear idea of its construction, or even the exact state of its remains, and it would not have merited particular attention if it had not been made the basis of an hypothesis respecting the origin and progress of those edifices, which, however simple and pleasing, does not appear to be true. The reverend father conjectures that the first public spectacles were given in small vales, and that the spectators beheld them from the declivities of surrounding hills. That afterwards, when they were exhibited in cities, excavations were made in the earth, and encompassed with benches of turf, upon which the people enjoyed their diversions without inconveniencing one another. That the greater the number to be accommodated the more they sunk the arena, and increased the surrounding slope; and finally, that they inclosed it with walls of masonry, and added other benches of stone till it was capacious enough to contain a vast multitude of spectators. This, he thinks, was the first method of forming amphitheatres, which the Romans improved into the magnificent structures we have been describing. The amphitheatre of Paestum he considers an example of this ancient method, and supposing the excavated part to be of great antiquity affords to the time of the Etruscans, and adopts the opinions which we have briefly controverted in the beginning of this article. But, however plausible this theory may be, if it depends on the antiquity of the Paestum amphitheatre, its probability will decrease in proportion as that antiquity becomes doubtful. The remains of this amphitheatre are indeed situated among temples, which are believed, though perhaps erroneously, to be very ancient; but it is difficult to believe that a city, which could erect such temples, would be content with a simple excavation for the place of its public amusements. As to the part which was built of stone, the arches at either end of the elliptical inclosure, prove it to be the work of a much later period; and if our conjecture be well founded that the invention of the arch and the first construction of stone amphitheatres were nearly coeval, if not reciprocally the causes of each other, the date of that part will be fixed in the reigns of the first emperors, when the fame of the coliseum and the passion for public spectacles spread through all the Roman provinces and tributary nations, and every country endeavoured to imitate in the manner belted suited to its population and riches the amphitheatre of Rome. But in whatever age the amphitheatre of Paestum was made, its form alone is no proof of its antiquity, as the amphitheatre of Carleon was formed in the same manner, and Britain might with equal reason produce it as an example of the earliest mode of forming amphitheatres, and from such evidence contend with Lucania or Etruria for the honour of the invention. The length of the Paestum amphitheatre was about 211 feet, its width 131 feet, the superfricis 71861 feet, or about three quarters of an acre.

In the five different amphitheatres which we have described, will be found the principal varieties of these edifices in a gradation that may be amusing to those who will take the trouble to examine them. The dimensions have been collected from the best authorities; and the calculations made and examined with care; but such is the difference among authors in this respect, that the more we have consulted the greater has been our uncertainty. Thus Beaumont gives the dimensions of the amphitheatre of Nimes as 738 by 333 feet, while Governor Pownall states them to be 460 by 333, and the difference between Fontana and Degodetz, with regard to the coliseum, is not less considerable. Who can wonder that the dimensions of the pyramids should appear to have remained doubtful from the days of Herodotus to the present, when we are uncertain as to the exact size of objects in a manner under our eyes.

The writers on amphitheatres, most worthy of regard are the learned Julius Lipius and the celebrated marquis Scipio Maffei. To the latter we have been greatly indebted, though we have not always adopted his opinions. Serino, who described the ancient buildings of Italy, about the middle of the 16th century, deserves more attention than he has received. His prints of the coliseum, though rudely executed, and in places, incorrect, preserve some particulars which later authors have omitted. The splendid work of Fontana on the same subject is very ingenious, but inaccurate, and full of improbable conjectures; we have, therefore, followed Degodetz in preference, who has trodden in the steps of Serino, corrected his errors, and supplied his deficiencies; but even the plates of Degodetz are in a few instances incorrect and inconsistent with one another. Governor Pownall's "Antiquities of the Provincia Romana of Gaul," and Augustus Beaumont's "Select Views of Antiquities in the South of France," furnish much information relative to the amphitheatre of Nimes and amphitheatres in general. "The Rovine della Citta di Petto," by Father Paoli, contains some amusing speculations which are rendered delightful by the amphitheatre of Carleon, as described by Giraldus Cambrensis, and that intelligent traveller Mr. Cox, in his "Tour in Monmouthshire." Numberless other notices may be found in writers on local antiquities that illustrate this subject; a subject equally interesting to the architect and the antiquary.

The amphitheatre is used by the French for the feats at the lower end of the theatre which arise above the parterre, opposite to the stage, and occupy the space of the front boxes and a part of the pit of an English theatre. They also give his name to an apartment appropriated to public scientific lectures and discourses, filled with seats, rising one above another, either in a rectangular, circular, or encompassing the whole room like the seats of an ancient amphitheatre. In the former case the scholars are in front of the lecturer; in the latter, he is placed in the central area, and surrounded by his scholars. Such schools in England are denominated theatres, as the theatre of the University of Oxford, the anatomical theatre at Surgeon's Hall, and the theatre of the Royal Institution, in London.

Amphitheatre, in Gardening, is a lofty terrace, ascended by flights of steps either straight or circular, supported by banks and slopes of turf in various forms, and used to terminate the view from an alley or an opening in a thicket. This mode of decoration is also employed to give regularity to the side of a hill, and to gain an easy ascent by means of slopes and platforms of turf to the summit. The banks and slopes are frequently embellished with flatten, fountains, vases of flowers, clipped yews, shrubs, and dwarf-trees, and sometimes behind these are planted trees of other size, such as pines and cedars. A terrace for gardening more conformable to the beauties of natural landscape, has nearly basified this kind of amphitheatre from England; but it is not uncommon in gardens on the continent.
AMP

AMPHITHURA, in Ecclesiastical Antiquity, a name given to the veil, or curtain, which divided the chancel from the rest of the church.

The word is αμφίθυρα, thus called, on account of its opening in the middle, after the manner of folding doors.

AMPHITREON, in Entomology, a species of Papilio. Wings indented, above black, with an unequal yellow band; beneath, on the posterior pair, a stripe of yellow dots, and blue lunulate marks. Limnæus. This is the Papilio Cambridius of Cramer. The body is large, and without spots; general color black, with an unequal row of yellow spots near the anal angle of the posterior, but not connected with it. Under side of the posterior wings black, with a stripe of seven large orbicular spots, and a streak of blue lunulate marks, terminating at the anal angle in a yellow dot; the margin fimbrious with yellow. A native of America. Fabr. 267.

AMPHITRITE, Ἀμφιτρίτη, from ἀμφίω, and τρίτη, third, in the Heaten Mythology, the wife of Neptune, daughter of Oceanus and Thetis, and goddess of the sea, sometimes taken for the sea.

There was a statue of Amphitrite in the temple of Neptune at Corinth, and another in the Isle of Tenos. Spanheim says, that she is often represented like a Syren, with the upper part of the body to the waist like a female, and the lower part with the tail of a fish instead of limbs. Amphitrite was the mother of Triton. Two Nereids were also called by this name.

AMPHITRITE, in Natural History, a genus of the Molusca order in the class of Vertebr. The body is protruded from a tube, and is annulated; peduncle warded; feelers acuminated, approximated and feathered; and it is defitute of eyes. Limnæus. The species of this genus are Renaformis, Pencillus, Ventilabrun, Ancrioma, Cistata, Chrysopectera, and Plumosa, which see.

AMPHITRYON, in Mythological History, the husband of Alcmena, was the son of Alceus, and the father of Hercules; but less distinguished by his own exploits than by those of Alcmena, which is of no great importance to recite.

AMPHODONTA, compound of αμφίω, and δόντη, tooth, in Zoology, a designation given to animals which have teeth in both jaws, the upper as well as under.

AMPHORA, in Antiquity, an earthen vessel, which served as a kind of liquid measure among the ancient Greeks and Romans.

It is called in Homer αμφοραί, from αμφίω, and φοραί, and by simcope, αμφορο-i, on account of its two handles for carrying. It is the same with the quadratales. But we meet with two kinds of amphora in ancient writers, the Italic and Attic.

AMPHORA, Italic, was that used by the Romans, and which is, therefore, sometimes called the Roman amphora. The Italian amphora was also called quadratales, and sometimes cadus. It contained 72 pounds of wine or water, 80 of oil, and 180 of honey.

The amphora was equal to 2 uræ, or 3 modii, 6 femidii, 8 rhenii, 48 sextaries, 96 semina, 192 quartaries, or 57,600 cubic, amounting to about 7 gallons one pint, English wine measure. Arbutnot.

The ancient amphora were either sēsile, i. e. such as would stand, or non sēsile, terminating in a sharp bottom. Of both which kinds, we meet with figures on ancient medals.

The amphora capitanea was the standard of this measure, which was kept in the capitol, to adjust others by.

Suetonius tells us of a man, who stood for the quattuor-

ship, and who drank an amphora of wine at one meal with the emperor Tiberius. Supposing the amphora to have been a cube of four feet each side, as Polian affirms it to have been, we may venture to say, that ten of the greatest drinkers on earth could not have emptied it. Dudder's computation is much more reasonable; he makes the amphora of wine amount to about 4½ gallons Paris measure.

AMPHORA, Attic, was that used by the Greeks, and therefore sometimes also called the Grecian amphora.

The Attic amphora was one-third part bigger than the Italic; so that as the latter contained 2 uræ, or 48 sextaries, the former contained 3 uræ, or 72 sextaries, amounting to about ten gallons 5½ pints English wine measure. This was called αμφορα, sometimes also αμφορεύς, and, by way of distinction from the Roman kind, μινχρῖς.

AMPHORA was sometimes also used as a dry measure, containing three bushels; the standard whereof was kept at Rome in the capitol, to prevent false measures.

AMPHORA is also used to denote the largest liquid measure in use among the Venetians. The amphora contains four luiros, seventy-five mydhe, or two boats, or muids.

AMPHORARIUM, in Antiquity, denotes that which is drawn or poured into amphore or pitchers, by way of distillation from vinum dolhare, or caaff wine.

The Romans had a method of keeping wine in amphora for many years, to ripen, by softening the lids tight down with pitch or gypsum, and placing them either in a place where the smoke came, or under ground. Colum. Re Rust. lib. i. cap. 6. Plin. Nat. Hist. tom. ii. lib. 23. cap. 1.

AMPHORITES, a kind of poetical contest, which obtained in the island of Ægina; in which an ox was given to the person who produced the best dithyrambic verses in honour of Bacchus.

AMPHOTEROPLON, among Civilians, denotes a kind of naval insurance, where the insurers run the risk both in the going out and return of a vessel.

In this sense the word ἄμφοτερος opposed to ἄμφοτερον, where only the voyage outwards is insured.

AMPHOTIDES, in Antiquity, a kind of defence, or armour for the ears, worn by the ancient Pugiles, to prevent giving their adversaries a handle by that part.

Authors have not been well acquainted with the nature and office of the amphotides. Some explain them as a fort of helmet for covering the nose and ears.

Fabretti first ascertained their real use, from the figure of a Pugil, which had amphotides over its ears joined by a piece coming over the forehead, and tied with strings under the chin.

AMPHRYSUS, in Ancient Geography, a town of Phocis, called Amphiros.

AMPHYSUS, or Ampyros, is also the name of a river of Phthiotis in Thessaly, which ran by the foot of Mount Othrys. Virgil, in speaking of this river, alludes to the time when Apollo, being a shepherd, guarded the herds of king Admetus, whence he is called "pater ab Amphryso," Georg. lib. iii. v. 2. This river is also mentioned by Callimachus, Apollonius, Ovid, and Lucan. Another Amphryus in Phrygia is mentioned by Pliny, to which was ascribed the property of rendering women barren.

AMPLA, in Conchology, a species of Voluta. Shell elongated, aperture large, lip acute, wreaths of the spire scarcely visible. Linnaeus.

AMPLEPIUS, in Geography, a town of France, in the department of the Rhone and Loire, and chief place of a township.
AMP

There is likewise a difference between the amplification and the proof; because the one serves to clear the point, and the other to heighten and exaggerate it; and therefore it requires a florid and beautiful style, consisting of strong and emphatical words, flowing periods, harmonious numbers, lively tropes, and bright figures.

There are two general kinds of amplification; the one of things, the other of words. The first is produced in divers manners: as, 1. By a multitude of definitions; thus it is Cicerio amplifies his history: Historia est fatis temporum, lux certatil, vita memoria, magistri vita, mundi vehiculi. 2. By a multitude of adjectives; of which we have a fine instance in Virgil's lamentations for Caesar's death, by enumerating the many prodigies and miracles that either preceded or succeeded it. Voxque parvae quaesitque saepe silentes ingenit, & simulacra multa tulentis miris sub obsoletis noditi: psuedique locuta, infrangunt inflant annos tergae deificunt: a sublimi illiary matem templi clar, araque fudiant. 3. By a detail of causes and effects, 4. By an enumeration of consequences. 5. By comparisons, similitudes, and examples. 6. By the contral of antithets, and by rational inference.

Amplification by words is effected fix ways. 1. By using metaphors. 2. By hyperboles. 3. By synonimia. 4. By splendid and magnificent terms; as that of Horace, Scandit creatae viribus nobis cura, nec turmas equitum relinquens, occis cerere, & agentis nimbose victa effus. 5. By periphrases, or circumlocutions. 6. By repetition. To which may be added, by gradation.

AMPLITUDE, in Astronomy, is an arch of the horizon, intercepted between the true east or west point, and the centre of the sun, or a star, at its rising or setting, so that the amplitude is of two kinds; ars or east, and or west. These are also called northern or southern, as they fall in the northern and southern quarters of the horizon; and the complement of the amplitude, or the distance of the point of rising or setting, from the north or south point of the horizon, is called the AZIMUTH.

To find the sun's or star's amplitude, either rising or setting, by the globe, see GLOBE.

To find the sun's amplitude trigonometrically; having the latitude and the sun's declination given. Say, as the cosine of the latitude is to the radius, so is the sine of the sun's or star's declination to the sine of the amplitude. Suppose, e. g. the latitude to be that of London, viz. 51° 32', and the declination 23° 28'; then cosine 51° 32', or 0.7993847; rad. or 10.000000 :: sine of declination 23° 28' or 0.600185: 10.000000 + 0.600185 = 0.7993847 = 0.600185, or the sine of the amplitude, or 39° 48'; and this is the same name with the given declination, viz. north, when the declination is north, and south, when the declination is south.

AMPLITUDE, MAGNETICAL, is an arch of the horizon, contained between the sun or star at its rising or setting, and the magnetic east or west point of the horizon, indicated by the magnetic compas, or the amplitude or azimuth compas; or it is the difference of the rising or setting of the sun, from the east or west point of the compas. For this purpose place the compass on a steady place, from which the horizon may be clearly seen, and looking through the light-vanes of the compas, turn the instrument round, till the centre of the sun, or other celestial object, may be seen through the narrow slit which is in one of the light-vanes, exactly in the thread which bisects the aperture in the other light.
fight-vane; and when the centre of the celestial object, whether rising or setting, is just in the horizon, pull the flag, in the side of the box, so as to stop the flag, and then read the degree of the card which stands just against the fidetrical line in the box; and this gives the amplitude required. In this operation allowance must be made for the height of the observer’s eye above the level of the sea. The difference between the magnetic amplitude, thus observed, and the true amplitude, obtained by the last article, is the variation of the compass. E. G. If the magnetic amplitude be observed by the compass to be 61° 47’, at the time when it is computed to be 39° 47’, then the difference 22° 0’ is the variation well.

AMPLUSTRA, in Conchology, a species of BULLA. Shell roundish; spire elevated, obtuse, banded with flesh colour. Inhabits Asia. Linneus.

AMPOSTA, in Geography, a town of Spain in Catalonia, situated on the Ebro, three leagues from its mouth, seven miles south of Tortosa.

AMPOTIS, variously figures properly the receds or cobb of the tide. But Hippocrates, who was of Cos, one of the Greek isles, and must have had many opportunities of observing the tides, very elegantly applies this word to the receds of humours from the circumference of the body to the internal parts.

AMPRACE, in Ancient Geography, a people whom Pliny places in Arabia Felix.

AMPRELITE, a people of Colchis, according to Pliny.

AMPSAGA, a river of Africa, on the eastern part of Mauritania Cofariensis, separating it from Numidia Propria, rises on Mount Auris, in the confines of the Atlas, and falls into the Mediterranean, ten leagues call of Jijel, or Lijjil. One branch of it, called Rummel, waters Cirta. According to Dr. Shaw, the Ampsaga is now called Wed el Kibbi, or the Great River, which corresponds with the signification of ampsaga; amplaga, in Arabic, denoting ample, or large.

AMPSALES, a town of Asia Minor, according to Ptolemy.

AMPSANCTI Vallis, or Lucus. See Moffetta.

AMPSANI, a people of Germany, conquered by Germanicus, according to Strabo.

AMPY, in Geography, the name given in Denmark to a lesser jurisdiction or district. The country is divided into several larger districts, called flits-amps, of which there are seven; four in Jutland, and three in the islands. Every flits-amps is subdivided into lesser districts called amps. A person of quality is generally chosen flits-ampsman, a pilot resembling that of lord-lieutenant in England. The flitsman, or under-governor of an amp, is generally a person of inferior rank, who resides in the principal town of his district, and is intrusted with the conduct of all public concerns. The pilot is generally given for life, as a recompense to those who have faithfully served the court. The flitsman is usually 400 crowns, and that of the flits-ampsman a thousand crowns; besides various exemptions and privileges.

AMPTHILL, a town of England, in the county of Bedford, pleasantly situate, near the centre of the county, between two hills. It has been of late years much improved, particularly by the erection of a handsome market-house. The principal streets are neat and regular, crossing each other at right angles. Near the middle of the town is an obelisk of Portland stone in which is a pump, built for the use of the inhabitants by the Earl of Upper Ossory; and west of the town is Ampthill park, his lordship’s seat, which is a superb edifice, containing a valuable collection of paintings, by several ancient and modern masters. The town has an almshouse and a charity-school. Its market is on Thursday; and its distance from Dunstable 12 miles, and from London 432.

AMSONIA, in Botany. See TABERNAMONTANA. Gmelin has made Amsonia a distinct genus, including two species, &c., 1. A. Tabernamontana, and 2. A. Ciliata. But Mr. Dryander observes, that the A. Tabernamontana of Walter, to which Gmelin refers, is certainly meant for TABERNAMONTANA AMSONIA of Linnaeus. The trival name is printed in Roman character; and he thinks it highly probable that Gmelin’s A. Ciliata is the same as TABERNAMONTANA AMPULLIFOLIA of Hort. Kew. Linnean Trans, vol. ii. p. 228.

AMPTRUARE, in Antiquity, denotes a kind of dancing performed by the chief of the fells, and answered with a correspondent motion by others in the chorus.

This is sometimes also called amphiurea; the answer of the chorus was particularly called redamtruares.

AMPUDIA, in Geography, a small place of Spain, in the country of Leon. In the time of the Goths it was a considerable city and bishop’s see; 12 miles north of Valladolid.

AMPUGNANI, a town of the department of Golo (island of Cortica) the county of which contains 4,143 inhabitants.

AMPULLA, in Antiquity, an oil vial or jug, with a large belly, used for unctions at the baths.

The word ampulla was also used for a drinking vessel used at table.

AMPULLA, among Ecclesiastical Writers, denotes one of the sacred vessels used at the altars.

The word is sometimes also written in English amphil. Ampulles were also used for holding the oil used in chrifnation, consecration, coronation, &c.

Among the ornaments of the churches we find frequent mention made of ampuls, or vials. In the inventory of the cathedral of Lincoln, we meet with ampuls of crystal, variously enriched with silver feet and covers: one containing a tooth of St. Christopher, another a tooth of St. Cecily, another a bone of the head of St. John Baptist. Dugdale, Mon. tom. iii. p. 272.

AMPULLA, Knights of St. Ampulla, belong to an order instituted by Clovis I. king of France; at the coronation they bear up the canopy, under which the ampulla is carried in procession. This ampulla, or sacred vial, with which the kings of France were anointed at their coronation, is said to have been brought from heaven by a dove, for the baptismal anointing of Clovis I. the first Christian king of France, A. D. 496, and dropped into the hands of St. Remigius, then bishop of Rheims, where it has been preserved ever since for the purposes of anointing all succeeding kings; and its divine denial is said to be confirmed by this miracle; that as soon as the coronation is over, the oil in the vial begins to wane and vanish, but is constantly renewed of itself, for the service of each new coronation. The Abbé de Vertot vindicates the truth of this miracle, in a dissertation written for this purpose; and Baronius says, that it was a miracle worthy of the apomophical times. Archbishop Hincmar, in the year 669, is the first voucher for the truth of this legendary tale. Justin’s Rem. on Eccl. Hist. vol. v. p. 320. Middleton’s Works, vol. ii. p. 184.

AMPULLA, in Conchology, a species of BULLA. Shell roundish, opaque, crown unmblicated. Linneus.—A most common species in the Indian, Ethiope, and American seas; about three inches in length; colour white, variegated with cinereous, black, brown, red, and blue, in spots and clouds. There are two, if not more, distinct varieties of this species;
Amputation.

The first, very oblong, opaque, dark, and scarcely an inch and a half in length; the second, transparently streaked, grey and black.

Ampulla, in Entomology, a species of gasterina, having blue claws without fangs; fourteen legs: hind thighs compressed and dilated. Fabricius. This is the cancer of Linnaeus. inhabits the northern ocean. Body almost white; proboscis incurved and sharp pointed. Tail of six leaves, last joint bifid.

Ampullaceae, in natural history, a name by which some authors have called a tribe of shells, which, in the Linnean arrangement, belong generally to the genus Voluta, or Becsekia; it is synonymous with concha, secohia, abum, and tonem. See Delium.

Ampura, in Geography, the name of a province in the kingdom of Peru, before its conquest by the Spaniards. The inhabitants are said to have worshipped two high mountains, because they furnished streams which fertilized the land. It is said to have been conquered by Viracocha, the eighth idol.

Ampurias, in Spain, a sea-port town of Catalonia, and the capital of a district called Ampurdam, in Catalonia, situated at the mouth of the Fluvi. It was once considerable, and a bishop's see, but is now a mean place; 1 5 miles east of Gerona, and 38 north east of Barcelona. N. lat. 42° 10'. E. long. 5°.

Ampurias, Castillo d', a little town of Catalonia, seated in a bay.

Amputation, in Surgery, is that operation by which a member is separated from the body. It differs from excision, in that the latter is cutting off a part of the body; whereas, the former is cutting it off.

Amputation is one of the most formidable and important operations in the whole art of surgery: although it is by no means the most difficult to perform. The skill of a surgeon is often much more clearly evinced, by saving a condemned limb, than by dexterously removing it: so that “the most expert operator,” as Mr. O'Halloran observes, “may not always be the best surgeon.” Nay, “to do justice to the sick and to ourselves, we must, in many cases, rather avoid than perform capital operations.” See Mr. O'Halloran's Treatise on Gangrene and Sphæclus; pref. p. 3-7. et seq.

"As to amputation itself, its indifferency of use, or, indeed, rather abuse, has been of infinitely greater detriment to mankind than service, must be admitted. We daily hear of sudden accidents that require amputation; and nothing is more common than to be informed, that the patient died in two or three hours after the operation. In sea engagements, where a limb is torn and shattered, death very soon follows mutilation; and after battles the recoveries bear no proportion to the deaths on this account.

"It was this great propensity to lopping off limbs,” continues our author, “that caused a complaint to be exhibited to Louis the XIVth, that his surgeons exaggerated the importance of their service by the number of mutilations only; and they were obliged to defend themselves from this aspersions before a prince, who wisely rated the lives of his subjects too high to suffer characters to be gained at their expense. In fact, it is not enough for a surgeon to know how to operate; he must also know when to do it.” Mr. O'Halloran computes that ninety-five patients out of an hundred ought to recover, where amputation is performed at a proper time, as well as in a proper manner; an acquisition highly honourable to surgery, and acceptable to humanity."

Historical Sketch of Amputation.

Although, from the earliest period of human existence, there must have been occasion for performing this operation, we have no decisive proofs from history that it was ever done by the father of medicine, Hippocrates. A. C. Celsius, who lived in the reign of Tibullus, and whose book De Medicina should be read by every surgeon, has left us a short description of the mode of amputating gangrenous limbs. It has been often remarked, that Celsius has left no instructions for securing the divided blood vessels; but it has not been commonly noticed, that in his chapter on wounds, he directs us to stop hemorrhages by taking hold of the vessels, then tying them in two places, and dividing the intermediate portion. If this measure cannot be adopted, he advises the use of a cauterising iron. Several hints are also to be met with in the writings of Celsius, from which it may be inferred, that the ligature of bleeding vessels was sometimes practiced in that early age; and this supposition is strengthened by a fragment of Archigenes, preferred by Cochin on the subject of amputation, where he speaks of tying or searing the blood-vessels. We are not, however, in possession of all the writings of medical authors prior to the time of Galen, and must therefore remain in doubt upon this point.

Celsius recommends amputation to be performed between the found and corrupted part of the member. The first incision was made with a knife down to the bone, but not over a joint; and some of the found flesh was to be cut off, rather than leave any of the gangrenous part. The muscles were then to be retracted, and cut close around the bone, to lay it bare; then we were to saw off the projecting bone close to the flesh which still adheres; afterwards the rough edges of the bone were to be made smooth, and the integuments brought over it as much as possible. It is somewhat extraordinary that Galen has neither mentioned this important operation, nor so much as once quoted the name of Celsius, who flourished about a century before him at Rome. If amputation proved often fatal in the days of Celsius, “fæpe in ipso operis,” as he tells us, it was owing to the want of some efficacious method of compressing the blood-vessels during the operation itself; for, although the ligature might, perhaps, be employed, they knew not the use of a tourniquet. See Tourniquet, Ligation, Cautery, and Hemorrhage.

The conciseness of the account left by Celsius renders it uncertain whether the edges of the skin were confined or not, so as to leffen the suppurating surface of the stump; but he evidently intended to preserve a large elevation of skin and muscle, in order to facilitate the cure. And as to the wound, so far as it remains exposed, he directs it to be covered with lint, and then bound over with a sponge dipt in vinegar. From the whole, then, it appears that the ancient Romans had tolerably correct notions of the art of healing. Paulus Egineta, about eight centuries afterwards, foggeled no improvement, except a broad fillet of cloth to retract the divided muscles during the time of sawing the bone: he recommended the application of hot irons, to sear the orifices of the bleeding arteries; and indeed, the early Greek practitioners were more disposed to use the actual cautery than the Romans.

The Arabian surgeons, who chiefly copied from the Greeks, made no material alteration in the mode of amputating; and were strangely inattentive to the advantage of the needle and ligature, which they well knew how to apply on other occasions. Perhaps this last affirmtion will be controverted; as a surgeon in Edinburgh has professed to tell the world, in two of his late publications, that the Arabian surgeons were ignorant of the needle and ligature for tying blood-vessels, and never used them otherwise, than by faying a wound just so much the closer and tighter in proportion to the
the bleeding." He says, "burning irons were used by the ancients, merely because they knew of no other means of sup-pressing the bleeding." Again, "In the times before Paré, not being able to take up an artery," &c.

We shall elsewhere have opportunity to treat of the Lita-
tures of bleeding vessels; and therefore can only observe, by way of anticipation, that those who (with Mr. John Bell) impute the first discovery of this practice to Ambrose Paré, are greatly mistaken, and not sufficiently familiar with the writings of the old surgeons, whether Greeks, Romans, or Arabsians. "It is not only entertaining but useful," says the late Dr. Hunter in his Commentaries, p. 62. "To see by what purports and steps an improvement was made; it gives clear ideas of the subject, makes a stronger impression upon the memory, shews the most probable road to improvement in similar inquiries, and raises emulation." But says he, "if a man writes freely upon any subject, without knowing what has been said by others, he vieues being made the object of ridicule or cenfire." Ibid. p. 60.

Guido de Cauliacco, who revived the languishing state of surgery in Europe during the 16th century, agrees with Avicenna and Albucasis, that it is better to cut off a morti-
ted extremity than to let the whole body perish. He ad-
vives, when the gangrene is near a joint, to separate the arti-
culation. In other cases he directs us to apply a tight lig-
ture on the edge of the healthy part as well as on the gan-
grenous part; cutting between them down to the bone, and then fusing through, with a retracter interposed. But some-
times Guido would wrap up a mortified limb, and allow it to fall off of itself; by which means he avoided the odium of am-
putating members that his patients might have thought cap-
pable of preservation. After the example of his predecessors, he had recourse to hot irons, boiling oils, and antiphon pow-
ders, to induce the hemorrhage; although he disapproves the practice of Theodoris and others, who gave narcotic remedies to prevent or mitigate the suffering of their patients.

Methods of amputating, somewhat like those of Guido, were used by Bartholomew Magnus, Velufins, and most surgeons in the 16th and 17th centuries; till Botalhis and Regius pro-
pounced to lop off the limb by a sort of guillotine, at one 
stroke, after the manner in which criminals, formerly of Scotland, and lately of France, were decapitated. This
summary treatment, however, caused so much contusion and splintering, that it was very soon opposed as unscientific and butcherly. The most important innovations made, about this time in amputating, were introduced by the celebrated Ambroise Paré, a French surgeon; to whose induc
ty, good sense, and skill, we are chiefly indebted for the abolition of cauterying instruments, and the general use of a needle and ligature to suppress the bleeding, after this operation.

Paré recommended to cut off the whole of the gangrenous part, if the limb be mortified; but to enroach as little as possible on the living flesh. At the same time he laid it down as a rule, not to leave a very long stump to an amputated leg; because the patient could more conveniently, he says, make use of a wooden leg, having the stump only five fingers long below the knee, than if much more of the flesh were to be preserved. In the arm, however, he left the whole of the living and healthy portion of the member, only separating the diseased part from the sound.

In preparing for amputation, he directs the fleshy and muscles to be drawn upwards, and bound tight with a broad bandage, a little above the part where the incision is to be made. This fillet was intended to answer a threefold pur-
pose: 1st, To afford a quantity of flesh for covering the bone and facilitating the cure; 2dly, To cleave the extrem-
ties of the divided blood-vessels; 3dly, To dull the patient's feelings, by pressure on the subjacent nerves. When this
firm ligature has been applied, Paré directs an incision to be made down to the bone, either with a common large scalpel, or a curved knife: then, by a smaller curved knife, we are carefully to divide the muscle or ligament remaining between the bones of the fore-arm or leg; after which we may proceed to faw off the bone, as high as possible, and to remove the apertures occasioned by the saw.

With the assistance of a curved pair of forceps, he drew out the extremities of the bleeding arteries, either by them-
Lelves alone, or with some portion of the surrounding flesh, to be firmly tied with a strong double thread. He now loosened his bandage, brought together the lips of the wound over the face of the stump, and kept them as close as he could, without actual fretting, by means of four stitches or futures. If the larger tied vessels should accidentally be-
come loose, he defines the ligature or bandage to be again palled around the limb; or elle, which is better, to let an afflant grip he limb firm with both hands, and press with his fingers over the course of the bleeding vessel, so as to stop the hemorrhage; then, with a square-edged needle about four inches long, and a thread four times doubled, the surgeon must secure the artery in the following manner:

Thrust the armed needle into the outsize of the flesh, half a finger's breadth from the vessel which bleeds, and bring it out at the same distance from the bleeding orifice; then round the vessel with the ligature, past it back again to within one finger's breadth of the place where it first entered, and tie a half knot upon a folded slip of linen rag, to prevent its hurting the flesh. Paré, by this means, says, the orifice of the artery will be agglomerated to the adjoining flesh so firmly, as not to yield one drop of blood; but, if the hemorrhage were not controlled, he contented himself with the application of antiliment powders.

The limb was afterwards treated according to the old plan, with "defenztive, reparative, and agglutinative." The first dressing was not removed for three or four days; but, when a suppuration came on, the "digestive, de-
terife, and mundificative remedies" were employed, until the ligatures might be safely removed, and exfoliation of the bone took place. As the surgeon saw proper, it was also recommended by Paré to halt the exfoliation by the actual cauterly applied to the extremity of the bone only; and to keep down fungous flesh by the use of burnt alum, blue vitirol, or red nitrate of mercury.

Thus did this famous surgeon endeavour, by his single example and principles, to exclude the barbarous use of hot irons in amputation. He says, he knew not of any such practice among the old surgeons; except that Galen recommended to us to tie bleeding vessels, towards their origin, in acci-
dental wounds, and he thought proper to do the same in cases of amputation; but in an apology at the end of his book, Paré has quoted, in his own defence, a dozen au-
thors, who employed or recommended the ligature before him; and he might have cited many more.

From the statement we have here given, it may be seen how far our best writers, of every country almost, have erred in ascribing the original invention of tying arteries to Ambroise Paré. Great merit, indeed, was due to him for the part he took in extending, and even reviving this incomparable prac-
tice; nay, it is not certain whether any one before him had ever applied the needle and ligature in similar cases, i.e. after amputation, but how very wide of the truth Mr. John Bell's recent account of this matter is, will appear to 
very person who will enquire into the facts themselves; for not only were needles and ligatures in use among the ancients.
AMPUTATION.

Woodall relates, that it was at this time no uncommon thing for criminals, who, in the East Indies, had their feet chopped off at the ankles, to get so well cured as to run on errands for their livelihood, after having put their stumps into large bamboo canes or reeds stuffed with cotton, &c.

Numerous applications, mechanical, chemical, and pharmaceutical, having been thought of to prevent bad and fatal hemorrhages after bleeding, it occurred to our countryman, James Young, that a more secure way of compressing the artery during amputation would be as follows: He placed a hard wad or bolster of linen cloth upon the inside of the arm or thigh, exactly in the course of the main artery; then, passing a towel or bandage around the member, he tied the ends together, and twisted them so very tight with a flick or button, as to stop the circulation through the blood-vessels. When the limb was amputated, he says, there was scarcely any bleeding, and the pain was greatly diminished by the compres. Before the dressings were applied, he advises to loosen the tourniquet a little, in order to observe where our care and allrigments are most wanted. This proposal is described in a curious and scarce book, published at London, A. D. 1679, entitled, "Curnis Triumphalis et Terribilis;" where may be likewise seen the first hint of the method of amputating with a flap, since claimed as a discovery by two continental surgeons, Verduin and Submorin; but whether or not these writers borrowed the suggestion from Mr. Young, is uncertain. As this mode of amputating is still very frequently practiced, and in many cases is unparalleled for its simplicity and advantages, we extract part of the author's original account, where he thus addresses his friend:

"Sir, I find by yours, that you are surprised with the intention I gave you, of a way of amputating large members, so as to be able to cure them per symphysin in three weeks, and without hourly and sealing the bone. I shall now entertain you with an account of the manner of this operation I would recommend to you, after I have told you that it was from a very ingenious brother of ours, Mr. C. Lovelam, of Exeter, that I had the first hints thereof. The ligatures and gips being made after the common manner, you are to put this dressing, or some long miliar-knife, to raise (following the leg) a flap of the membranous flesh covering the muscles of the calf, beginning below the place where you intend to make an incision, and raising it thitherward of length enough to cover the stump: having done so, turn it back under the hand of him that gipses, and as soon as you have secured the member, bring this flap of cutaneous flesh over the stump, and fasten it to the edges thereof by four or five strong stitches; having so disposed, clap a doffit into the inferior sort, that one padding may be open, for any bone or matter that may lodge between; but of that there seldom occureth any: then lay on a common defensive, &c. boil. fang. dracor. matric. terre sigil. cum alib. ovar. & acetum. and thereto girt it close with your cross bandage, and other compresse, after the usual manner; for the same way the defensive, &c. not only defends from accidents, as heat, pain, fluxion, &c. but gently compresseth the vessels, thereby contributing to the securing the amputation, and very considerably assists to the agglutination: the latter, "fidel. the compres figura, keeps the flesh firm and close to the ends of the divided vessels, confirms the coagulation, keeps the parts from cavity, and the blood from extravasation; and hinderers that deflux of humours which would otherwise destroy the intention of cure.

"In this fort of amputation, that manner of compressing the thigh by ligature, or the arm near the shoulder, which I have recommended in the foregoing discourse, is of excellent use; because thereby you may retain the delicacy of the blood, till by your dress and bandage you have so far secured the part as that it can receive no damage thereby.

"In this way of cure, phlebotomy, ileps ligature of the extreme parts, if need be, with what else may contemporaneously to the blood, hinder defluxion and maturation, and promote coagulation, though claimed against in that discourse, is in this case very useful and necessary.

"In the succeeding dressings, medicines healing per symphysin are to be used, and moni'ted them, perhaps, there are none better than those already mentioned, adding some powder of the roots of great compirse thereto; the doffitt, if you use any, may be left out the next dressing, or that following it.

"That this method hath cured such a stump in the three weeks, is a truth I can vouch with sufficient testimony; and I believe you will not much doubt it when you have perused this, and considered how easily and soon such large coagulation hath been made.

"I must not forget to intimate to you that this manner of dismembering, &c. is not to be made use of where the part hath been much injured, touched from fluxion, or otherwise vexed therewith, nor in members amputated for chronic caules; as cancers, fistulas, &c. of which the body is poor, or covered each by each, because in such digestion (which would destroy the motion) it is necessary to rectify and soothe the mistake, which it doth by draining off the matter of the dispoze more than ten fontanelles can do. It is also lef's unavoidable, for the course of nature that hath been dischared itself to long (as in a fistula), cannot of a sudden be obstructed without hazard of a mischiefous apolllamation; moreover, in such ill habits as those cases either cause or re-
AMPUTATION.

felt from, consolidation is difficult, if not impossible to be so suddenly performed, as this manner of cure requireth: the dyscrasia of the blood having destroyed or weakened its balance that it cannot expeditiously the work, which, if not speedily done, cannot be performed securely and firm; and in parts infamed and tortured by fluxion, or by concretion, it is easy to imagine there must be a discharge of that concrete matter, which cannot be, and yet the wound cured by sympathy.

"But in most of the amputations made at sea in fight, or on land in battles, or whatsoever acute accidents, such as wounds, recent lacerations require it, it may be done, and that with those advantages of the other way it rivals."

The author next enumerates eight very singular advantages with which this new method is attended, and then concludes his letter as follows:

"These are all the considerable advantages manifestly acquired by this new way: without doubt lice and trial will discover more, equal to them, and an abundance of lesser conveniences, which at present occur not to my consideration: these are enough to shew the novelty to be considerable and worthy of imitation: let them have with you this exceptional manifestation, that I am very ready to obey and serve you."

"Plymouth, Aug. 3, 1678. "JAMES YOUNG."

We thus have demonstrated, though it is not commonly believed, that what the French call "operation a l'anbeau," claimed as the invention either of Verdun or Sabourin, was put in practice by surgeons of Exeter and Plymouth before the year 1678. The different improvements and suggestions of more modern authors, will be noticed in our account of the amputation of particular members.

Of the Causes which may render Amputation advisable.

Previous to the time in which the needle and ligature were generally had recourse to, for securing the divided arteries after amputation, this formidable operation was but rarely ventured upon, by even the most enterprising surgeons; so that, we seldom read among the older authors of a limb having been amputated, from any other cause than a complete mortification. About the middle of the last century, however, the practice of inconsiderately taking off diseased members was so common, that several eminent surgeons attempted to prove it was never, or scarcely ever, absolutely needful. This opinion, although it originated from the belief that it was certain, was evidently wrong; since cases daily occur, in which, for want of amputation, patients must either inevitably die, or would only preserve their limbs at the hazard of dragging out a miserable existence, perhaps worse than death itself. Two general causes, at least, will therefore justify the performance of amputation: First, when the life of the patient is considerably endangered, by keeping his limb; secondly, when its preservation does not secure a more useful member than an artificial one.

The surgeon must know how to distinguish the circumstances in which the amputation of a limb is necessary, or may even be considered as a benefit; and in which, though it be delayed, or conceived to be unnecessary, the patient would run the risk of losing his limb or his life. To form a determination is no easy matter, and in many cases extremely difficult; especially as, in forming it, we have also to consider whether, by means of the operation, the patient's life or limb can really be saved. For in the cure of limbs that have been materially wounded, the event often depends upon the constitution of the patient, his age, and the air in which he lives; and it is rarely possible to form a sure prognostic at first, as the symptoms, from which it can be drawn, generally do not make their appearance till during the progress of the cure. Now, though it cannot be denied, that amputation has in many instances been performed when there was no necessity for it, it would be folly to imagine that it may in all cases be avoided. For there certainly are numerous diseases incident to the extremities, in which this operation is the only means of alleviating the sufferings of the patient, and even of saving his life.

1. A Caries of the Bones, whatever be its degree and magnitude, is not a sufficient reason for amputation in a young subject, at least not till every possible means have been tried for the preservation of the limb; but when the disease has spread very far, so that no benefit can be expected from the common milder remedies; and when the caries is become advanced, and combined with deep spreading ulcers in the surrounding soft parts, we have certainly no remedy left but the operation. However, even in this case, it would be necessary previously to examine, whether benefits were really to be expected from the operation; that is, whether the caries was confined entirely to the part, or, whether it had not spread itself already too far to admit of a cure.

2. When the bones of a limb have been entirely shattered by a Gun-shot wound, and all the muscles, ligaments, vessels, and nerves have been so lacerated by it, as to render the circulation of the blood into the fore-part of the limb altogether impossible, and that its death is altogether inevitable; farther, when a whole limb, or a part of one has been torn off by a cannon-ball, or by any other means, in such a manner that the bones are broken off into uneven splinters, and remain uncovered, and the muscles and tendons likewise are of unequal lengths, and at the same time very much torn and bruised; in both these cases the necessity of the operation is evident.

3. When a large Aneurism of long standing has destroyed the texture of the surrounding parts, and has produced a high degree of supputation, especially if it be in a joint, amputation is necessary, on account of the diseased state of the surrounding parts; for, on account of the aneurism alone, it would never be advisable. But it also becomes necessary when, after the operation for an aneurism has been performed, the limb does not acquire again its warmth and sensibility, but dies away. See the article Aneurism.

4. In compound fractures, let them have ever so unfavourable an appearance, amputation is never allowed, provided we are able immediately to procure for the patient all the requisite medicines, red, attendance, pure and wholesome air, and proper nourishment; for even in the most desperate cases a cure has sometimes been effected. But when, for example, in armies and fleets, every thing requisite for the cure of the wound is wanting, we are obliged to proceed to amputation; which must either be performed very soon after the injury has been inflicted (especially if the bones be shattered near a joint), or delayed until its most immediate effects and consequences, namely, the swelling, inflammation, and fever, have made their appearance.

5. In large wounds, combined with much Laceration and contusion, it is extremely difficult to determine the necessity of the operation, which, consequently, ought never to be performed immediately after the wound has been inflicted; but it is at most admissible afterwards, when the wounds suppurate so profusely as to exhaust the strength of the patient, or when they become gangrenous, or when a hemorrhage
hemorrhage is produced that can be stopped by no other means.

6. In white swellings, when the bones have become carious, the operation is always indicated; but good effects can only be expected from it when the disease is still merely or chiefly local. When it has already become general, or when it is the consequence of a serousous habit of the body, it is in the first case always, and in the second generally, unsuccessful.

7. In large swellings of the bones, that either endanger the life of the patient, or on account of their size, or from some other cause, become unbearable, the amputation of the limb is the only remedy that remains; provided there be no caufe present that renders it inadmissible.

8. Cancerous Sores, which, in some rare cases, attack the extremities, may indeed now and then be extirpated without amputating the limb; however, when the disease has already spread itself among the surrounding parts, and has attacked the bones and ligaments, the amputation of the limb, above the diseased site, may be of some benefit.

9. In other extensive and malignant ulcers, that do not arise from any inner and general cause, and which materially vitiate the whole mass of fluids, injuring the health, and, instead of yielding to the remedies that are employed, spread farther and farther, and become more and more obstinate, we are obliged to advise amputation, as the patient's life is actually in danger.

10. Incysted Tumours are sometimes very deep seated, or are even produced within the bone or upon the periosteum, and increase to a considerable size; so as by the preasure they occasion, to injure the texture of the surrounding parts, and not only to render the bones carious, but entirely to dissolve them. In such cases the operation may, under certain circumstances, be rendered necessary.

11. The extremities, and, according to Dr. Richter, most frequently the feet, are sometimes affected with a singular kind of tumour, the peculiar character of which has not as yet been accurately defined, but for which no remedy has hitherto been discovered, except amputation. The reader will find it described under the head of Oedema.

12. Sometimes also the distortion of a limb may be so considerable, and cause such great inconvenience, on account of its flattened, that the patient will rather lose the limb than remain longer in that condition. If we are not able to cure or relieve the distortion by any milder means, we may with propriety comply with the desire of the patient.

13. Finally, a gangrene may render the operation necessary; but that this is advisable in only a few cases, the reader will find maintained under the head of Gangrene.

When, therefore, it appears, upon due consideration of every circumstance, that the diseased limb cannot be preserved, and that the life of the patient can only be saved by immediately amputating it, the operation must be undertaken without further delay. Considered of itself, it is not so dreadful an operation by far as it formerly was, nor are its consequences so precarious and troublesome; and the cure is effected much more speedily, provided that, in performing it, all the rules prescribed by the present improved state of surgery are observed.

For performing the operation most of the following instruments are requisite:

1. Two straight knives, the blade of one to be from six to seven, and that of the other from five to six inches in length. The first of these is used in amputating the thigh, and the second for the rest of the limbs.

2. A small, narrow, straight knife, or catin, edged half way down the back, three inches and a half long, half an inch broad. This is used for cutting through the flesh between the two bones, in the forearm and leg, and for dividing the periosteum.

3. A fine sharp saw, for sawing through the bone. The blade may either be made of a steel spring, about ten inches long and half an inch broad; or of a wide steel blade, strengthened by a firm back, as represented in the plate of amputating instruments. The handle should be of a size proportioned to that of the blade; it also should be smooth, and without much ornament.

4. A small saw, made of a watch-spring, for separating splinters, and dividing the bones of the fingers, &c. The blade of this saw must be provided with a screw, by which it may be turned in either direction.

5. A small straight saw without a frame, for separating splinters in parts where the first saw cannot conveniently be applied.

6. A small pair of scissors, with long handles, for dividing membranes, ligaments, and tendons.

7. A pair of forceps, with a sliding button, for laying hold of the arteries; or, which will answer the purpose better, a tenaculum, with a light handle.

8. A tourniquet. (See the description of this instrument.)

9. A flip of parchment, eighteen inches long, and from four to five broad; it ought to have a slit as far as the middle, terminating in a circular hole. (See Retractor.) Its use is to draw back the muscles. We may also use instead of it, a broad leather strap, or a fillet of linen of the same shape.

10. Two tapes, half an inch broad, for tying round the limb, one above the other, under the place where we intend to make the incision. Still more useful for this purpose, especially when the limb is fat and flabby, are narrow leather straps with buckles, which hold the flesh firmer than the others.

But many surgical uses neither of them.

11. A quantity of adhesive plaster cut into slips.

12. Two fingle headed bandages, the many tailed bandage, or a woollen cap.

13. A number of pledges and compresses.

14. Lint, needles, and waxed thread.

General Rules of Practice.

In performing this operation the surgeon must be particularly attentive to the choice of the place where he should amputate; to the prevention of any violent hemorrhage during the operation; in cutting through the skin and muscles, to the finding of as much of those parts as is necessary for entirely covering the stump; in tying up the arteries he must be careful to spare the neighbouring nerves and other parts as much as possible; he must be attentive to the support of the external integuments, that they may not shrink back again after the operation; and, finally, to the subsequent treatment of the patient, till he is completely cured.

In general, a successful event depends upon the surgeon promoting, by every means in his power, a speedy union of the parts, or the healing of the wound without suppuration; the chief method by which this important point may be obtained, is by preventing all exposure of the wounded surface, and retaining the integuments in close contact with the subjacent bone, &c.

Ordinary Steps of the Operation.

Having determined on the propriety of amputating, and fixed the time in which it should be performed, we should prepare and arrange the necessary apparatus. Previously to commencing
commencing the operation, the surgeon will not fail to see every thing in the apartment that may be wanting, either for his own use or the patient's comfort. When the assistants have been properly instructed, a tourniquet is first to be placed over the main artery of the limb to be amputated, so as to stop the circulation entirely. On some occasions a tourniquet cannot be applied, and in such cases a careful person is to be appointed to the office of preventing the haemorrhage by other means. The limb being firmly secured, an incision is then to be made through the skin and cellular membrane, down to the muscles, by one circular stroke, except when the flap operation has been resolved on. The integuments are next to be raised, and turned back or drawn up from the muscles, more or less, according to the circumstances of the case, for the purpose of afterwards furnishing a covering to the face of the stump; in thus separating the integuments, we must have particular regard to the size of the limb. At the lower edge of the reflected skin and fat, the operator begins his second incision, carrying it through to the bone, in an oblique direction upwards, by holding his knife a little flinting. The retractor, if one be wanting, is now to be applied; and, by means of the double-ended caudal, the flesh, &c., is to be divided between the bones (in the fore-arm and leg). A small line of separation must also be made through the peritoneum, but it is not to be severed, for the entrance of the saw; after which the bone or bones will be divided, by slowly repeated long strokes with the saw, taking care not to make splinters. Having next secured the bleeding vessels, by ligature alone, and wiped away the coagulated blood, after slackening the tourniquet entirely, we finish, by bringing the lips of the wound neatly in contact, retaining them by crofs flips of good adhesive plaster, laying soft lint, &c. over the outside, in the direction of the edges of the wound, and bandaging the stump, with the ligatures hanging out at one corner. Thus may we frequently effect a cure in twenty or thirty days, by healing without suppuration, and without danger, after taking off the largest extremities; especially in quiet, airy situations, and with healthy young patients.

Amputation of the Thigh.

In this operation, the patient is to be recumbent on a table of the ordinary height. A common tourniquet must be applied as near as possible to the upper part of the thigh, immediately under Poupart's ligament, in such a manner, that the compres comes to lie straight upon the femoral artery: the fillet laid over it is to be screwed or twisted, by means of a short pick, over a piece of horn or leather placed on the opposite side, so tight, that not only no blood can flow through the large artery, but so as also to squeeze together all the muscular parts as closely as possible. A tourniquet of this kind (see the Plate of Surgery) prevents a haemorrhage, not only from the principal trunk of the artery, but also from all the lateral branches, and is therefore preferable in such cases to the screw tourniquet. Some surgeons, during the operation, never make use of a tourniquet, but have the artery strongly compressed by an assistant with his fingers and a cuffion.

It is a general rule, that we ought never to amputate more of the thigh than the disease absolutely requires; for the more of it we suffer to remain, the more useful the lump will be. Where the injury done to the limb is such, that only the leg is damaged up the knee, we amputate the thigh about a hand's breadth over the knee, in order to gain a quantity of skin sufficient for properly uniting the parts. The incision through the skin must be made at least three fingers breadth lower than the second cut, by which the muscles are divided. In order to hit upon the right measure, we must principally attend to the thickness of the thigh, for the thinner it is the more skin we must endeavour to gain; but it is in general better to have too much, than too little, of the integuments.

Two assistants, who stand at the head of the patient, hold fast his arms, and a third secures the found leg. The divided limb is held by two assistants in a horizontal position, with the knee moderately bent. One of these holds the limb, with both hands under the knee, firm and immovable: the other supports the thigh in the middle, holds it fast, and at the same time draws the skin tightly upwards. The operator now applies one of the small fillets to the place where he intends to make the first cut; namely, when the whole thigh is found close over the patella, and draws it very tight in an exact circle round the limb. With the assistance of this fillet the cut may be made more even and circular; and the fleshly parts, particularly the integuments, are prevented from shrinking and impeding the operation, being held fast and tenet at every point. This fillet, therefore, is of great and essential use in the operation, and ought certainly to be retained, though some may be inclined to reject it as imprudent. Due to apply a second fillet above the cut, as some do, is unnecessary. The operator, who stands on the outside of the limb, now cuts through the skin and cellular texture, with a straight, strong, and sharp knife, close over the upper margin of the fillet, in an exact circle, without cutting into the muscles. In performing this part of the operation, great attention is necessary, in order that the incision may not be made too superficial, or too deep, or even crooked. When the operator has divided the skin all round, but not the fascia lata, by this first cut, he next divides the fascia cautiously, by repeated cuts, without penetrating into the muscles; after which the skin may be more easily drawn back as far as he thinks proper. The skin is now to be retracted in an uniform manner, in order that the second cut may also be made exactly circular; the first assistant must, therefore, be well acquainted with the method of performing this operation.

When the skin has been drawn back full three fingers breadth (too much is always better than too little), the operator, using the same knife as before, cuts the muscles through down to the bone, close to the margin of the retracted skin, with a perpendicular, even, and circular incision. Some surgeons, however, cut through obliquely, by flinting the edge of the knife upwards. If the operator has acquired sufficient dexterity by practice, he will always be able to make this incision without carrying the knife twice round the limb.

"As it frequently happens, in amputating the thigh," says Prof. Murina (Neue Med. u. Chirurg. Beobachtungen, Berlin, 1796. 8. pag. 515), "after the circular incision through the muscles, though these are divided three fingers breadth higher than the skin, that the flexor-muscles of the leg contract more than the extensors, and thus, at times, produce a deformity of the limb, which occasions some inconvenience in wearing a wooden limb: this accident might be prevented, by keeping the patient's knee moderately bent, whilst cutting through the extensors, and extended whilst making the incision through the flexors. The incision will, nevertheless, be even and circular; and when performed in the above mentioned positions of the limb, will prevent any deformity of the limb, for the flexor-muscles of the leg contract with much more force, after the incision than the extensors; in order to avoid which, the former must be cut through at their greatest elongation, consequently when extended, and the latter when contracted. By this practice
AMPUTATION.

no time is lost, nor any additional pain given to the patient; and both the cure is more speedily effected, and the stump acquires a better form."

"Generally (says Dr. Richter in Medicin. u. Chirurg. Bemerk. &c. B. I. Gottingen, 1793, p. 232.) the flexor muscles contract with much greater force than the extensors after amputation of the thigh. They do the same during the progress of the cure also, and consequently, even in the most rapid cure, attended with no suppuration, the stump generally grows uneven at the bottom, which causes inconveniences in the application of a wooden leg." He accedes therefore to Prof. Murmann’s opinion, that the extensors should be divided higher and the flexors lower, consequent on the flit with the knee moderately bent, the second with the knee extended. This practice deserves, therefore, to be generally recommended.

According to Mr. Allan’s method, the knife ought to be conducted in a slanting direction, with the edge directed upwards, in form to a hollow cone; but few surgeons have any opportunity of acquiring the dexterity requisite for performing the operation in this manner, by practising it upon dead bodies; and it is not done by some of the most noted surgeons on the continent. Prof. Colenien (Tode Medicin. Journal, B. I. Copenhagen, 1793, p. 166.) does not make his incision in the form of a cone, but cuts through the skin at the requisite distance from the place where the bone is to be faved through. He next separates the skin from the muscles, as far as is necessary, in order to turn it back as the cuff of a coat. He next cuts through the flit, saws off the bone, binds up the vessels; and, lastly, draws down the retracted skin over the stump, and folds it together in such a manner as to make it form an oblong flit from above to below, out of which the ligatures of the vessels hang.

"To hold the knife obliquely (says Prof. Murmann in Neue Med. u. chirurg. Beobachtungen, p. 165.), with the edge turned upwards, in cutting through the muscles, so as to form a conical incision, is a refinement upon the operation, which it is equally difficult and unnecessary to practice."

"I am still of opinion," Dr. Richter remarks (Med. und Chirurg. Bemerk. B. I. p. 232), "that the operation by means of which Mr. Allan endeavours to make the stump itself hollow, is very difficult, if not entirely impracticable." He performed the amputation in the following manner: the incision was made three fingers breadth above the knee. An aifillant laid hold of the limb, with both hands, above the place of the incision, and secured the skin. By the first circular incision, the operator divided not only the skin, but also the cellular texture, as far as the external surface of the muscle; this must necessarily be done, if we wish to be able to draw the skin much upwards. When the cellular texture has not been completely divided, we shall generally find that it becomes tenes, whilst we are drawing the skin upwards, and thus prevents its being retracted so far as it otherwise might. Whilst, therefore, the assistant drew up the skin as much as possible, the operator made a second circular incision, close to the margin of the retracted skin, with which he again divided the cellular texture as deep as to the surface of the muscles, whereby the assistant was enabled to draw up the skin still much higher; so that now the upper margin of the skin was at least three full fingers breadth distant from the lower. The separating and turning back of the skin, according to Mr. Allan’s method, he considers as a very tedious and difficult operation. With the third circular incision he cut into the muscles along the margin of the retracted skin, not so deep as down to the bone, however, but only about half way through. He now directed this divided external layer of flesh to be drawn upwards, as much as possible, with the fit compres; and with a fourth circular incision along the margin of the retracted skin, he cut through the remaining flesh to the bone. The whole of the flesh was now drawn back with the fit compres so strongly, that the bone was laid bare the length of at least two fingers breadth, and could be sawed off to that height. When the skin and muscles were drawn down, the stump formed a conically excavated surface, at the upper part of which the bone lay so deep within the flit, that it could not be seen. After the vessels had been tied up, the stump was pressed together on both sides, so that the wound formed a flit in a straight direction from before to behind. The edges of the skin were so close to each other, that the wound resembled a very narrow slit. The skin was fastened together with adhesive plaster, and the flit and the stump were pressed together by pads of lint applied to both sides, and then confined by a bandage. The ends of the ligatures hung out at the lowell and pollelwr angle of the wound. Even on the fifth day, three quarters of the wound, from the top, adhered together, and were quite dry; the lowest quarter, out of which the ligatures hung, was still moist, but discharged only a very few drops of pus during the whole course of the cure. On the eleventh day the ligatures were separated, and the remaining small orifice closed in the space of a few days more.

When all the muscles have been cut through to the bone (whether we have recourse to Richter’s or Allan’s mode), the fit compres is applied; by means of which the remaining muscular parts are covered, and these are, at the same time, somewhat drawn back by the hands of the aifillant, in order that the operator may be able to use the saw with more freedom, and saw off the bones higher up. When this has been done, the periosteum is divided circularly, as high as possible, with a short, strong knife, and peeled downwards. The saw is now applied horizontally, and the bone sawed through. The operator saws slowly at first, but when the saw has laid proper hold of the bone, he moves it somewhat quicker; and, at the same time, the aifillants hold the limb rather high at the superior part, and low at the inferior, so as to bend it somewhat afunder, in order that the saw may not get wedged in during the operation. When the bone is nearly sawed through, the saw is again moved slowly and with short strokes, in order that the stump may become as smooth and even as possible. Should there still remain any small projection on the bone, this must immediately be removed.

As soon as this has been performed, the vessels are to be secured by ligatures. The principal trunk is first tied up, and if it be at the division of the artery, both branches are included in one ligature. For this operation a triple thread is used, which is fastened together with wax, so as to form a flat ligature, in order that the artery may be tied fast, without danger of its cutting through. This thread is inserted into a crooked needle; the artery is laid hold of, at its orifice, with a tenezium, or crooked sharp hook; it is then drawn forwards, and the needle being introduced under the vessel, in such a manner as at the same time to perforate the cellular texture on both sides, it is pulled through. The aifillant now holds the hook, whilst the operator takes hold of the ligature inflected under the artery, and ties it fast with a double knot, over which some surgeons make another single one, about two lines above the extremity of the vessel. The ligature is generally left of such a length, that it can be conveniently fastened upon the skin on the outside of the wound. Should we find it difficult to discover the trunk of the art
AMPUTATION.

When the tourniquet has been removed, the stump must be left exposed, upon which the pointing of the blood immediately discloses its oriice. In order to discover the oriice of the lateral vesfels, the tourniquet must always be quite loofened, that they may also be bound up in the manner already described.

As the adhesion of the parts, and the healing of the wound depend upon the blood being entirely stopped, it is necessary that all the lateral vefels which discharge any should be tied up; for which purpose the surgeon, when he has loofened the tourniquet entirely, wipes the stump with a wet fpounge, examines whether any of the branches discharge blood, and ties up those which do, be they never fo small. When no more blood is discharged, the stump is once more wiped with the fpounge, entirely cleansed from the blood, and the lips of the wound are brought together.

The ends of the ligatures, if there be many, ought to be distributed between both angles of the wound, that they may not form a thick bunch, and occasion inconvenience by their pressure. When every part of the operation has been performed in manner above directed, the adhesion will take place easily; but if the directions are not observed, it will sometimes not take place without much difficulty and pain.

The lips of the wound may be brought together in two different ways. Some prefs them together, on both sides, fo that the wound forms a perpendicular slit, which runs in a straight line from the fore to the back part of the thigh, and let the threads of the ligatures hang out of the lowermost and posterior angle of the wound. Others prefs them together, fo as to form a horizontal fllure: in this manner the flap may lie conveniently, and the fluids may still be discharged by the two lateral orifices of the wound, out of which the threads hang. By this method the flap also acquires a better form than when the fold is made perpendicularly.

When the lips of the wound are brought together in either of the abovementioned ways, they must be made to apply neatly to each other, and all the points of the sides of the wound brought into close contact. Whilft the surgeon holds them together in this manner, an affiant applies from four to six flips of adhesive plafters; then lays over the edges of the wound some loose dry lint, and covers this with a quantity of the fame fpafnum, fpread with a mild, healing ointment. The whole is finally secured with a long bandage, which is apied at the upper part of the thigh, and carried down in spiral folds round the limb to the bottom, where it is doubled round, and carried up again to the upper part: it is then doubled round, and brought over the fore side upon the wound from behind upwards; and these flaps are repeated over both sides of the thigh and over the wound, in such a manner, that one fold alfo always covers the other. The whole thigh is thus covered with the bandage. These folds are then b'cured by circular folds from below upwards, without crossing the bandage over the flap, as that would be an impediment to the adhesion of the wound; but by this method of bandaging, the retraction of the skin is prevented, and the adhesion promoted.

After the bandaging has been completed, the patient is placed in a convenient posture, and the thigh is laid upon a bolster, gently bent; for if laid horizontally, or even lower than the horizontal line, it not only causes pain to the patient, but the flexor muscles of the thigh constantly tend to bend it and bring it to the abovementiond position. If we attempt to counteract this tendency, by applying force to the limb, it becomes convoluted, and the adhesion is frustrated.

If no particular symptoms forbid it, the flrst dressings are suffered to remain on till the fourth, fifth, or flfth day; and when all this is still properly united, the adhesive plafters are nevertheless left in their places. The wound is cleansed from the impurities that have been discharged, and the limb is bandaged in the manner above described. If any of the plafters have broken loose, or the lips of the wound have separated at any part, the flatter is cut through over the wound, without pulling it off, and a new one, or if it be necessary, several are applied, in order to bring the separated lips of the wound into proper contact.

Instead of the circular bandage above described, some ad- vise the limb to be rolled with Loder's twenty-seven-tailed bandage, (D. Juft. Chr. Loder, Chirurg. Medium. Boohachingen, &c. Lib. i. Wimar, 1794, p. 14. Tab. i. fig. 4. 5;) in which case a circular bandage is firit applied to the upper part of the thigh, and carried down to the bottom in spiral folds, fo close to each other, as to prevent its retraction of the skin and muscles, but not to excite pain, or obstruct the circulation. The bandage is falleden with a pin at the lower part of the flump, leaving for future use a piece large enough for folding two or three times round the limb. After the whole of the bandaging has been performed as above described, the remaining part of the fliet is folded twice or thrice round the limb, fo that the prufure can be increafed or diminished at pleafure, and finally the twenty-seven-tailed bandage is applied.

While we apply the circular bandage, the tourniquet must be removed, but it must be again applied as soon as we have finifhed the bandaging of the limb, in order that we may be able immediately to stop any hemorrhage that may come on; for which purpose it fuit likewise be kept applied for several days after amputation has been performed.

When the patient has been put to bed, and a hooped frame laid over the flump, he fould immediately receive an opiate, in order to prevent involuntary fpasmodic motions of the flump. During the fift days after amputation, an affiant ought frequently to examine the thigh with great care, in order that if he fhould find blood to flow from any of the vefels, he may draw the tourniquet as tight as is neceffary to prevent any material hemorrhage, till proper affiduus can be obtained. If there eude only a small quantity of blood from the surface of the flump, it is unneceffary, on that account, to remove the bandages; but when the hemorrhage is confiderable, it can only be stopped by the application of ligatures: for were it even poifible to flop it by compreflion, this would ftrquate our principal aim, namely, the speedy union of the parts without fappuration. After we have flopped the bleeding, we must apply the bandages as before directed.

When every thing goes on according to our wish, the bandages are only renewed every two or three days, in order that we may not impede the uniting of the parts; but often, if the fappuration becomes more copious, or a new pain is perceived in the wound. Commonly about the tenth or ifth day, sometimes later, the threads of the ligatures may be drawn out by gently pulling them; frequently they grow loose and fall out of themselves. When the threads have been detached, the open angles of the wound are to be united nearly in the fame manner as before; after which the complete cicatrisation of the wound takes place in a longer or shorter time, but commonly in a week or a fortnight more.

To prevent inflammation, the patient fhould be strictly treated during the fift days after the operation, according to the antiphlogistic regimem; though this must be used with great caution in exhausted and debilitated constitutions, lest by too strict a regimen we might impair the strength of the body. When the pyrexia has abated, the patient is in a
AMPUTATION.

It is adopted by many as a general rule, that the amputation of the leg should never be performed just above the ankle, even though the disease be seated near the bottom of the limb; but always three or four fingers breadth under the knee: repeated experiments, however, have shown, that amputation may be successfully performed just above the ankle, and as near to them as the disease permits. The advantage of being able to use the knee-joint in walking is so great, that the surgeon should not deprive the patient of it. (See our account of the Flap Operation.) The objection, that a long stump is an incumbrance, may be removed by the use of an artificial foot. In order to promote the cure of those wounds, the projecting tendinous parts must be separated with the scissors. Mr. B. Bell conceives it to be better in every instance, where the circumstances admit of it, to amputate a little above the ankle than at the upper part of the leg: amputation immediately under the knee he rejects entirely, as the cure of the stump is always tedious in this situation, the bones thick, and the soft parts deficient. In such cases he prefers amputating above the knee, though his opinion cannot be unconditionally adopted.

When we are to amputate immediately below the knee, the patient is placed upon a table, and secured in the same manner as in the amputation of the thigh. Some are of opinion that the tourniquet should be applied a little above the knee, with the cushion upon the artery in the ham; but others apply it also in this operation immediately under Poupart’s ligament, or in the middle of the thigh, which is the preferable method. The foot and leg are secured by an assistant, who sits before the patient. A second assistant draws up the integuments towards the knee. The surgeon stands on the inside of the limb, and with his knife makes a circular cut through the skin and cellular sub stance down to the muscles; so that after as much of the integuments as will afterwards be necessary for covering the stump, has been separated in this manner from the parts beneath, the muscles and bones may be divided immediately below the part where the tendons and flexor muscles of the leg are inserted. When this has been done, the soft parts between the two bones must be divided with a two-edged knife (named a cuti)n, and the periosteum separated downwards. The skin and other soft parts must then be held fast to protect them against the saw, which is to be applied so as to cut through both of the bones together. When this has been done, and the vessels tied, the external integuments are drawn over the stump, and retained with adhesive plasters. During the course of the cure the practice is the same as after amputation of the thigh.

In separating the skin we must be very careful to separate it from the subjacent parts in such a manner as to have as much of the cellular substance attached to it. The more we deprive the skin of its cellular texture, the more lifeless it becomes, and the less fit for adhering speedily to the stump. As the skin also on the one part of the leg cannot be retracted with near the same facility as in other parts, for example, the thigh, where it lies upon muscels, while on the fore part of the leg; on the contrary, it is connected by a very dense cellular sub stance immediately to the periosteum, the assistant is always obliged to fold back as much of it as has been separated, before the division of the muscles can be attempted, in order that the surgeon may be able to separate them from the bone, and have as much of them as is requisite for covering the stump.

The reason why the surgeon is directed to stand on the inside of the limb in this operation is, that when the knee and foot are turned inwards, and the fibula raised, he may be able to saw through both bones of the leg together, which he cannot do when he stands on the outside. Finally, he must take care not to suffer the bone to break off, or should such an accident happen, he must remove the inequalities that may be produced by it. Many have advised, in amputating the leg, after the muscles have been cut through, to apply a ligature round both bones, in order to hold them fast, and the same has also been advised in the amputation of the fore-arm; but this can be of no advantage, for it will he better to hold both the bones fast with the band, and infer the forefinger between them, nearly under the spot where the saw is to go through, in order to prevent their coming into contact with each other.

When the leg is amputated immediately above the ankle, an artificial foot cannot easily be applied and secured upon the stump; the machine must be made heavier and thicker at the ankle, nor can the leg be made so equal in length and thickness as the other, as would otherwise be possible. When the stump is about nine inches in length from the knee, its dimensions are reckoned to be in every respect the most convenient.

Of amputating with a Flap.

In the old method of performing amputation, the cures were very tedious, and the health of the patients much impaired;
Amputation.

As it is very difficult to restrain the hemorrhage which may accidentally happen to supervene, after the flap has been applied in Mr. Young's manner, it being necessary for that purpose to undo the whole of the bandages, and separate the flap from the surface of the wound; moreover, as the flap does not always adhere uniformly over the whole surface of the lump, and the pain, inflammation, and tension which supervene, are sometimes much more violent than after the ordinary method of amputating, Mr. O'Halloran proceeded to define the lump and flap as two separate wounds for the first twelve or fourteen days; but afterwards, when the danger of bleeding is over, the symptoms subsided, and suppuration established, to turn the flap back over the surface of the lump, and secure it by adhesive plasters, compresses, and bandages, till a complete adhesion has taken place. It seems that one grand cause of failure in the success of the flap operation, as it was performed in France about a century ago, was "the monstrous hemorrhage," as Mr. O'Halloran expresses himself; and, according to their uncouth mode of conducting the operation, we almost agree with the late named writer, that "it was absolutely impossible for it to succeed." But we are surprized that Mr. Benjamin Bell, of Edinburgh, even in the new edition of his Surgery, should misrepresent the success of the present mode, so much as to deny its having cured "before the fourth week."

System of Surgery, vol. vii. p. 330, 7th edition: this is certainly an unfair and imperfect statement of Mr. B. Bell.

By Mr. O'Halloran's improvement the flap operation was rendered more safe and certain, but has not come into general use, as that which Mr. Alphonsin invented in the mean time deserves, in most cases, the preference. The flap may, under various circumstances, be employed with advantage. Where it is impracticable in the common way to cover the divided parts sufficiently, we ought always to cut out a flap of muscle or skin for that purpose; it is bell, for example, when we amputate the arm at the shoulder joint, or a finger, or toe.

It has also been preferred by some surgeons when the leg is to be amputated immediately under the knee, as the integuments are very thin at that part, and there is reason to suppose that the lump cannot be sufficiently covered by any other means.

It has not been the common practice to make a double flap, although this is at present done with very great advantage by the surgeons of the Liverpool Infirmary. Their method is (excepting for diseases of the feet) to take the flap from each side of the limb, in preference to above and below, as it affords a better outlet for any pus that may collect in the lump. Upon an average, we find, on making recent inquiry, the flumps are healed in about "eighteen days;" which is more than can be laid in favour of any other mode of amputating. The double flap likewise is free from the puckered appearance which remains after the single flap; and in a few weeks, we are informed, "the cicatrix can hardly be perceived." Our own experience with the flap operation, even in the metropolis, is much in its favour; so that whatever objections have been raised against it (when properly performed), we are strongly inclined to think they have been chiefly theoretical, and not founded on actual observation.

Amputation with a Flap immediately above the Knee.

This operation may be performed either with one or two flaps; but if it be done with only one, it succeeds best on the fore part of the thigh, as there is here a sufficiency of flapps for forming the flap and covering the bone; and as the matter thus falls off more readily when the flap is applied, and the patient laid down upon his back.

The patient being placed upon a table, and the tourniquet applied to the femoral artery below Poupart's ligament, an afieldant draws the skin firmly up, and retains it in that situation. Whilst this is doing, we ought to mark, with ink upon the skin, the circumference of the intended flap. The extreme angle of the flap should reach to the bottom of the thigh below the skin, which should be much dissected, in which case the flap must terminate where the dissection of the integuments commences. The base of the flap must be at the place where we intend to saw through the bone. Its breadth must be proportionate to the dimensions of the limb. If, for example, the diameter of a flump be twelve inches, a flap four inches and a quarter in length will be fully sufficient to cover it. But as some allowance must also be made for the quantity of skin and muscles that may be saved on the opposite side of the limb, by drawing them up before sawing the bone, a thirteenth inch thick will require a flap more than three inches and a quarter long, and in proportion to the size of the limb. The flap should be as broad at the base as the breadth of the limb will permit; and it should be continued nearly, though not entirely, of the same breadth, till within a little of its termination, where it should be cut circular, so as to correspond, as accurately as may be, with the back part of the circumference of the wound.

When now the surgeon has marked out the circumference of the flap, he must place himself on the outside of the thigh, apply the point of a straight double-edged knife to the outer side of the base of the intended flap, and pull it in to the depth of the bone; then, carrying the point close to the bone, pull it through the integuments on the opposite side of the mark. He must now carry the edge of the knife downwards in such a direction as to cut out the flap according to the figure marked out; but towards the end he should raise the edge somewhat from the bone, so as to make the lower part of the flap somewhat thinner than the base, whereby it will apply more accurately to the surface of the fore. The flap must be held by an afieldant, but the skin and muscles on the back part of the limb must, with one stroke of the knife, be cut down to the bone, about an inch lower down than where the bone is to be sawed. The muscles are then to be separated to this height from the bone, with the point of the knife, and all the soft parts must be drawn back with the flat compress, till the bone is sawed. Any splinters that may have been left are then to be separated, the arteries tied up, and the ligatures left hanging out at the edge of the flap.

The muscles and integuments must now be drawn down, and secured with a roller, as has been directed above, in treating of the amputation of the thigh with the circular incision. The flap may now be laid down over the surface of the wound, the coagulated blood having first been carefully wiped off with a sponge, and the flap may then be moderately secured to the stump with adhesive plasters and future. The under part of the flap should be covered with a large
A large pledget is spread with cerate, and a cushion of lint or tow laid over it. The whole should then be covered with crofts flaps of linen, and several turns of the circular roller. After the space of three or four days, or even longer, the dressings may be renewed. As soon as all the ligatures are removed, and the tension and pain have abated, the skin may be drawn over every part of the wound which before was not covered, and secured with adhesive plasters.

The method now described is generally to be preferred; but if, instead of effecting the cure by promoting a speedy adhesion of the parts, the surgeon deems it advisable, he will treat the flap as a separate wound according to O'Halloran's method: in which case, his correct mode of proceeding is as follows: The muscles and skin being brought down and secured with the roller, the whole surface of the flap is covered with a soft pledget spread on both sides with an emollient ointment. Upon this the flap is laid down, and another pledget of the same kind being laid over the flap, a cushion of lint or tow fiat, and a compact of soft linen are applied, and the whole is secured with crofts flaps of linen and a circular roller; but with no more pressure than is requisite for the security of the dressings. At the end of three or four days the dressings may be renewed in the same manner; and about the tenth or twelfth day, or whenever the tension and inflammation are removed, the ligatures may be taken out.

When now a proper suppuration is established, the flap may be applied to the stump. But previously, the matter must be wiped off from the surfaces of both forces, with a soft sponge, and these being brought into contact with the greatest exactness possible, they may be secured either with adhesive plasters or two or three futures.

Mr. Benjamin Bell, who prefers the latter method, advises us, that when, with a view to immediate adhesion, the flap is laid down directly after the operation, the pain, tension, and inflammation, which ensue, run too often high as to compel the surgeon to remove the dressings; whereas, when O'Halloran's method is adopted, the inflammation which ensues is very trifling, and the cure is accomplished even more quickly, than when the operation has been done according to the former method. We are however very much disposed to think the inflammation, etc.; is too often produced by tight bandaging or futures, in the cases where it falls of itself.

The operation with two flaps, according to Ravoton's method, is performed in the following manner: When the tumefaction has been applied, an assistant draws up the skin tight, and makes a circular incision through the skin and muscles at the lowermost part of the limb, with the edge of the knife turned obliquely upwards. A sharp-pointed knife is now pushed in on one side of the limb down to the bone, at the part where the bone is to be fow'd, and the under edge of the knife being turned obliquely outwards, the muscles are divided down to the circular incision. The skin and muscles on the opposite side of the limb are now divided by a similar incision, and with these the intermediate soft parts that may have been left are likewise cut through. When now the bone has been sawed, and the vei'ets tied up, the surgeon may either lay both flaps together immediately (as we recommend), or keep them separate for the first twelve or fourteen days, after which he may treat them in the manner above directed.

Of the Flap-Operation below the Knee.

This operation is performed nearly in the same manner as that above the knee; and the flap may be applied either immediately, or after the pain, tension, and inflammation are gone. Only we cannot here, as on the thigh, so commodiously cut out the flap on the fore part of the limb, as the leg has no muscles there. On that account all writers direct the flap to be cut out at the back part: though this is attended with a very considerable inconvenience. For when the flap has been cut out at the calf of the leg, it is fearfully possible, after it has been applied to the stump, to prevent the accommodation and retention of the pus, as it does not find a free vent below, and we dare not apply more than a very moderate degree of pressure to the flap.

Instead therefore of cutting the flap out of the back part of the leg, Mr. B. Bell advises us to it from the outside of the limb, where there is a sufficient quantity of muscles for the purpose, and where the flap can be no impediment to the discharge of the pus. He therefore performs the operation according to the following method: Let the point of the knife be entered on the outside of the ridge of the tibia, at the place where the bone is to be sawn, and after carrying it backward, in a direct line, to the opposite side of the sa/e of the flap, let the edge be carried down the line previously marked with ink as a direction for the form and length of it.

When we amputate immediately above the ankle, we must cut out the flap behind, as there is not a sufficient quantity of soft parts behind; but it is here to be repeated, what has already been observed, that the leg ought never to be amputated immediately above the ankle, as to have the stump too long for an artificial leg and foot being conveniently adapted to it. In an adult we ought therefore to form the flap about nine inches under the knee, if we wish to perform the operation in this manner.

Amputation of the Foot, Toes, and Fingers.

When the whole foot is diseased, we must perform the amputation in the manner above mentioned, above the ankle. This should also be done even where the joint itself is found, but all the rest of the foot diseased. Some, indeed, have advised to take off the foot at the ankle joint; but as, when this is done, an artificial foot cannot be applied, nor the stump covered with feithy sublimation, the amputation above the ankle is evidently to be preferred.

But when a considerable part of the foot is still found, we ought to endeavour to preserve it, and merely to remove what is diseased; and this should be our practice even where two of the metatarsoal bones only remain found; for the patient may still make good use even of a small part of the foot in walking, provided he wears a shoe well made, properly fluffed out, and with a strong unyielding sole. This may be done, especially when the bones on the inside of the foot, or those corresponding to the great toe, and those next it, are left. Very remarkable, therefore, is the case of Mr. Turner's amputating the foot at the middle. The operation was performed on account of a painful tumour, which extended as far as the middle of the metatarsoal; and it was thought unnecessary to amputate above the ankle. A double incision was therefore made, and in order to preserve as much as possible of the integuments, a small part of them situated above the tumour, was included in the first incision. As the integuments could not be drawn back to any considerable length, it was impossible to preserve so much of them as might have been wished. The foot was fow'd through at the upper part of the metatarsoal, the hemorrhage was easily stopped, and in the course of ten weeks it was completely healed, without any violent symptom having supervened.

When only single bones of the tarsals are diseased, these bones alone are to be taken out. When only one part of a bone
bone is diseased, this must be removed with the faw, chisel, or trephine, but not the whole bone taken away.

In every amputation as much skin as is sufficient for covering the wound must be faved; but this is particularly necessary in amputating any part of the foot, where bad effects are to be apprehended from friction in walking. As the skin of the sole of the foot is commonly very thick, the flap which is to cover the sore ought, if possible, to be taken from that part; for this will prevent the bad effects of friction upon the part, much more than could be done by the skin of the upper part of the foot which is thinner, and accustomed to friction or pressure.

In performing this operation, the patient is placed on a table, and the tourniquet applied, either below Poupart's ligament, or the upper part of the thigh, or over the knee, with a compress in the ham. The limb is secured by an affiant, and in sawing through the diseased bone, a piece of pasteboard, or a thin splint of wood, should be inserted between it and the contiguous found bone, in order to prevent the latter from the saw. When the diseased bone has thus been removed, and the arteries tied, the flap that has been faved is laid, with as much exactness as possible, on the fore, and secured with slips of adhesive platter, and a roller. If futures are employed, they ought to be inserted in such a manner as not to injure the tendons of the flexor and extensor muscles of the foot and toes.

In amputating the fingers and toes, we proceed in the same manner as with the larger extremities, and the flump must here also be covered with a flap. The skin is drawn back as much as possible, after which the skin and flesh are cut through with a straight bistouri, between the contiguous found fingers and the diseased one, in a straight line backwards, till somewhat above the joint, on both sides; the skin and flesh are also cut through above, round the joint; the finger is then bent towards the palm of the hand, and cut off from the out to the inside; the incision terminating at the fore part in such a manner, that still some part of the flesh is preserved for the purpose of being afterwards applied over the wound to facilitate the cure. When we only leave a single flap of integument on the finger, it has been recommended to let it be taken from below in labouring people, to afford a suitable flump for pressure; but, where beauty is more an object than use, we may take the flap of skin from above, as it will then scarcely occasion a visible scar after the cure.

In as much as we here speak of the flaps, in which the whole finger or toe is amputated from the contiguous metacarpal or metatarsal, we must also proceed in a similar manner when amputating only one or two joints; and if we find it necessary to tie an artery, we should do it by means of the tenaculum. The flap must be laid over the wound, and secured as accurately as possible with adhesive plasters, and moderate pressure with a roller. The objection which has been made that the union of the soft parts with the cartilage is precarious, is not founded in truth; for the skin unites with the cartilage, which covers the bone at the joint almost as readily as with other parts. It is therefore unnecessary that we should separate the cartilaginous surface of the joint with a small saw, as was formerly the general practice.

Amputation of the Arm and Fore-Arm.

This is performed in every respect in the same manner as has formerly been directed for the amputation of the thigh and leg. It should be remembered, however, that a long flump will be more useful in the arm than a short one. When we are to amputate at any other part than the joint, we may do it without cutting out a flap to cover the wound; for in these parts there is a sufficient quantity of muscles, cellular texture and skin, for covering the flump, if we draw back the skin, according to the directions formerly given, and first divide that, and afterwards the muscles. Should this not be practicable in certain cases, it would then undoubtedly be better to perform the operation with a flap.

Amputations in the Joint.

These operations have been recommended on the authority of a number of cases in which they have been performed. In such an operation we are directed to cut first through the skin, nearly over the joint, with a straight knife upon the upper or forefoot side, making a semicircular incision; we then open the capsule of the joint on both sides, and in doing this, we bend the limb (suppose it be the hand) in order to obtain room for cutting through the capsule all round, that we may the better be able to spare the cartilage of the joint. The rest of the operation and cure is conducted in the usual manner.

But though amputation at the joint is preferable to amputation above the joint, with the fingers and toes, and perhaps also with the hand, the application of the same practice to other joints, such as the elbow, knee, and ankle joint, must be attended with very great difficulties. For, in the first place, this method of amputating is in fact more tedious than the operation above the joint. It is also equally painful, and the hemorrhage equally dangerous; and as the soft parts in these joints are mostly aponerotic and tendinous, a favourable inunction and suppuration are not so likely to ensue. Besides it is very difficult at the elbow and ankle joint to saw off so much muscular substance and skin as are requisite for covering the bone at the surface of the articulation, on which account a tedious suppuration and exfoliation generally take place; and there is reason to apprehend, that we may afterwards be still compelled to amputate again above the joint, and saw through the bone.

We shall describe the operation, as it has been done at the hip and shoulder-joint by eminent surgeons.

Amputation of the Arm at the Shoulder Joint.

Though this operation ought never to be performed when we can accomplish our purpose by amputating below the shoulder-joint, it being always a hazardous operation yet we ought not to hesitate to undertake it, when abscesses in the joint, carries of the humerus extending to the shoulder, complicated fractures reaching as far as the head of the bone, bad gun-shot wounds, or a phænocus render it necessary. Mr. Bromfield has given the following directions for performing it; and he did it several times with success. See his Chirurgical Observations, vol. i. p. 247, et seq.

When the apparatus is ready, place the patient upon his sound side upon a table, and in a somewhat oblique posture, that the surgeon may have room to move freely. Let an affiant then compress the subclavian artery at the place where it passes through the scapular muscle, in such a manner that, by the relaxation of the first rib, the passage of the blood through the artery may be entirely prevented. In order to know whether the pressure be sufficient for this purpose, we have only to examine the pulse at the wrist.

The patient being properly secured by the affilante, and pressure made firmly on the artery, the surgeon begins his incision on the inner side of the arm, at the edge of the deltoid muscle, namely, at the place where the great pectoral muscle passes over the axilla, to be inserted into the os humeri. He cuts through the skin and muscles, carrying his incision downwards, and rather obliquely outwards, till he arrives a little
AMPUTATION.

The ends of the ligatures are then drawn to the outside of the arm, and the inner part of the flap let fall down in such a manner, as to fit into the semicircular incision. The surgeon then passes a large crooked needle in a thread through the inner flap, about an inch and a half under the upper and inner part of the wound, and carries the point of it through the skin of the wound in the same line, forming the interrupted future in the usual manner, in order to promote the speedy union of the parts. The same operation he repeats twice with the outer flap, then draws out the ends of the threads through the middle incision in the deltoid muscle, and lets them hang out till they come away spontaneously, which may be in about eight or ten days.

When the socket of the joint is not curious, the operator, before drawing out the ends of the vessels, is recommended (but, we think, very improperly) to separate the cartilaginous substance which lines its socket with a scalpel, and to cover the bone with dry lint, which is to remain there till it comes away of itself. He also makes use of dry lint when the socket of the joint and the adjacent bones are curious. Every long sinus that does not proceed perpendicularly upwards must likewise be laid open by an incision.

After the operation he covers the flap with a double piece of flannel, which he draws together with a needle and thread, in such a manner as to make it lie close upon the upper part of the shoulder, so that it cannot fall down. This he furtherSecures with other strips of flannel, from three to four fingers-breadth broad, and from 6 to 9 inches in length, according as the strength of the patient requires, leaving such a stripe of flannel on each side to the upper edge of the bandage; the foremost of which he carries behind over the back of the patient, and the hindmost forwards over his breast, so that they cross each other over the shoulder, and again on the opposite side at the axilla, after which their ends are brought back to the flap, and there secured with pins. Two other stripes of flannel are fixed on the inner and outer side, to the inferior margin of the flannel bandage on the flap, one of which is carried across the back, and the other across the breast at the lower part of the sternum; they are then made to cross each other at the axilla of the sound arm, then brought round to the shoulder, and crossed again; after which the end that was brought out under the axilla, and carried to the shoulder, is now passed along the lower part of the neck to the bottom of the flap. The other end is brought forwards, and secured to the bottom of the flap with pins.

Mr. Benjamin Bell advises us to perform this operation, after a method somewhat different from that of Bromfield; although he seems not to have done it himself. He directs us to place the patient upon a table of a convenient height, covered with a mattress and a blanket. Let him be laid upon his back, as near as possible to the edge of the table, and properly secured by assistants. Hemorrhage is guarded against by an assistant compressing firmly with his fingers and a cushion on the subclavian artery, as it passes over the first rib directly above the clavicle. The diseased shoulder is then made to project somewhat over the side of the table, and the arm is stretched out at nearly a right angle with the body, and supported by an assistant.

The incision is made exactly at the junction of the deltoid muscle into the humerus, in a circular form through the skin and cellular substance; the integuments are retracted about half an inch, and along their margin all the muscles are divided with a perpendicular cut down to the bone. All this is performed with the common amputating knife; the rest of the operation is performed with a strong round-edged scalpel. With this instrument a perpendicular incision is made.
made down to the bone, commencing at the acromion, and terminating in the former circular incision, so as to pass straight between the centre of the deltoid muscle and its outer edge, and end about an inch above, or rather on the outside of the brachial artery. A similar incision is made on the back part of the arm, commencing also at the acromion, and terminating in the circular incision. This should be at such a distance from the first perpendicular incision, that the two flaps formed between them may be both nearly of equal breadth. The brachial artery must be tied, as soon as it has been divided by the circular incision through the muscles; and any other anastomosing branches of arteries that may have been cut must likewise be tied in a similar manner. The two flaps must now be separated from the bone, care being taken not to injure the great brachial artery, in separating that part of the flap near which it lies. An assistant must then prevent both the flaps from being drawn forward, so as to bring the capsular ligament of the joint into view. Into this ligament an opening is now made, and the bone dissected, by dressing the arm backward. The operation is then finished by dividing the remaining part of the ligament.

Any arteries that may have been cut about the joint must be tied, and theligature suffered to hang out at the most depending part of the wound. When the parts have been cleared of all the congealed blood, the two flaps are laid together, in such a manner as to cover the joint as exactly as possible, and retained in this situation by one or two more ligatures. A pledget spread with emollient ointment is laid upon the joint, and over this a cushion of lint with a soft compress of lint. All this is secured by a flannel roller, applied so as to make only a moderate pressure, by which the flaps will be kept in contact with the parts beneath. The patient must, in other respects, be treated according to the directions formerly given. In the course of eight or ten days, Mr. Bell says, the ligatures will easily come away; but to avoid any risk from sudden hemorrhage, he advises an assistant to watch the patient for the first few days after the operation.

This method is undoubtedly more easy and simple than that of Bromfield: for the muscles are divided at once, down to the bone, with a circular incision; and not, as in Mr. Bromfield's method, first one muscle cut and then another. As the attachments of all the muscles to the humerus are removed by the arm being taken away, it is not necessary we should divide them with such fineness and caution; one ligature also upon the brachial artery is sufficient, if applied with the requisite care and attention by means of the tenaculum. Neither is it necessary to scrape off the cartilage from the acetabulum of the joint; for, as has been already observed, the soft parts will adhere to cartilage as readily as to bone.

Another method of amputating the arm at the joint was employed by Mr. Defaut, of Paris, which seems not only to be far more expeditious, but also less painful to the patient, and easier to execute than any other. The manner in which it is performed is as follows:

The patient being placed upon a chair, and the subclavian artery compressed by the finger of an assistant at the place where it passes through the scapular muscle, the arm is raised in such a manner as to form nearly a right angle with the trunk of the body. A two-edged scalpel, having a straight blade six inches in length, and half an inch in breadth, is thrust into the joint at the place where the long head of the biceps muscle enters it, and brought out again an inch below the axilla; in this manner the capsule of the joint is cut through forwards; and, at the same time, the knife is carried round the head of the os humeri on the same side of the arm, care being taken to keep it always quite close to the bone. By cutting downwards in this manner, all the fleshy substance is at once separated from finger-breadths below the joint, so as to form a triangular flap, in which the axillary artery and vein are contained. This flap is immediately laid hold of by an assistant, who holds it off from the bone, and compresses the vessels with his fingers. The arm is then bent a little backwards, the knife introduced again into the joint, the remainder of the capsule and ligaments cut through, and, by carrying the instrument downwards from the back part next the bone, and at the same distance from the joint as before, another triangular flap is formed similar to the former in shape and size. The arm being entirely cut out in this manner, the axillary artery and vein are tied as high up as possible.

When the acetabulum of the joint is quite free from disease, the cure is endeavored to be effected by reunion, for which purpose Mr. Defaut also conceived it to be unnecessary to scrape away the cartilage. The two flaps are now laid together, so as to fill up the socket of the joint, and the legs united by means of the interrupted future. Over the fleshy parts dry lint is applied, and over that a compress, in the form of a croul of Malta, spread with ointment; then again a round compress and two longuettes, which are all finally secured with a flannel roller. Under the axilla an oval piece of linen is applied, partly in order to refill the impetus of the blood in the axillary artery, and partly to prevent the fleshy parts more closely to the hollow of the scapula, with a view to facilitate the healing of the wound. The whole of these dressings are likewise secured with a roller.

The knife used in this operation must be sharp, and somewhat ground off on both sides, like a pair of scissors. The blade should not be made of too hard steel, lest it break during the operation; on the contrary it should be rather flexible, but at the same time tough, in order that when it is carried round under the head of the os humeri, it may apply the more aptly to the bone.

Amputation of the Thigh at the Hip Joint.

The proposal of this operation must at first strike a feeling mind with horror; and, indeed, it is so terrible as well difficult to perform, that many eminent men have thought it impracticable to be done with success. This opinion has even been advanced by Schnuckro, in his Vermifche Chirurgiliche Schriften, &c. B. i. p. 48. Berlin, 1776; where the author says, "He is persuaded that no patient on whom it may be performed can ever survive." He very properly diffuses us from relying on experiments which have been made on dogs, and from thence inferring, that similar trials will succeed equally well on the human subject; but Schnuckro ought certainly to have spoken with some degree of diffidence, after the publication of facts which seem to establish an opposite opinion to his own. That a person may actually survive this dreadful operation, will appear from what we shall presently relate for the reader's information.

The possibility of performing amputation at the hip joint with success, was discussed so early as the year 1739; and was maintained in a public thesis, at one of the medical schools at Paris, A.D. 1748. The members of the Royal Academy of Surgery at Paris, likewise believing that it was practicable, gave out the following prize question in 1756: "Dans le cas où l'Amputation de la Cuisse dans l'article par-voitait l'unique Ressource pour sauver la vie à un Malade, déterminer si l'on doit pratiquer cette Opération, et quelle serait la Meilleure la plus avantageuse de la faire?" but not being satisfied with the answer it met with, they again proposed the same subject for the year 1759. On the former occasion, twelve memoirs were received by the Royal Academy; on the
AMPUTATION.

I then turned the head of the femur out of the cæstulum, that I might with more ease and security accomplish the most important part of the operation, namely, the taking up the artery. From the foregoing description you will easily conceive that a flap about four inches in breadth, consisting of all the integuments with the artery included, was still undivided. This flap I grasped firmly between the fingers and thumb of my left hand, (my fingers on the skin side of it, and my thumb on the muscular) and cut it through immediately below my hand, and between three and four inches from the passage of the artery under the ligamentum tallopini.

The incision here was made from above downwards, first through the muscular part of the flap, and then through the fat, vessels, and skin. It was done in this manner that the skin might correspond with that which was divided by the first incisions, and that the edges of the wound, we cannot say a lump, might thereby be kept neat and uniform.

The next step was to secure the artery, which I effected by lashing a strong ligature round it with a needle, and getting one of my assistants to tie it up; such a compreßion being all the while made upon it by my left hand in the manner related above, as to prevent the loss of a single drop of blood, and the hemorrhage from the other arteries was full as inconsiderable as in any other amputation of the thigh. By laving a good portion of skin the wound was much more decent and feemly than you can well imagine; but, to my great mortification, I found not only the acetabulum carious, but also the adjacent parts of the uña immumata, to a very considerable extent. From her almost confluent cough, I was under the greatest apprehension that the artery would be forced open; yet no mischief ensued, and the ligature fell off at the fourth or fifth dressing: the aspect of the fore, in the mean while, giving us the most fanguine hopes of her recovery. But about the tenth or eleventh day her respiration became more difficult, expiratio cæsatur, her mouth and tongue were covered with aphthæ, and she died on the 15th day from the operation. The appearance of the fore, even to the half, was such as to give good reason to suppose that the immediate cause of death was the daily increase of the hectic symptoms, and that without the amputation the operation would have succeeded; I therefore had her opened, and our supposition was, I think, pretty strongly confirmed by the following phenomena. The lungs were almost totally reduced to matter, especially on the right side, in which there was scarcely a vestige of pulmonary substance remaining. The left lobe also was full of abscesses, and reduced to less than half the natural size. An abscess (commonly called the poa abscess) was likewise found on the right side, in the abdomen, which communicated, by a corroded opening with the acetabulum, with the joint.

I have given you an exact narrative of the circumstances of the case, the operation, and the event of it; at least, I do not recollect any other of consequence. I shall not comment farther upon it than just to observe, that the total destruction of the ligamentum rotundum by the suppuration within the joint, contributed greatly to the facility with which the operation was accomplished; for I imagine, if that ligament had been entire, the division of it would have been attended with perhaps considerable embarrassment; I think, however, it might be effected in a found joint.

With regard to the expediency of the operation, I am so much convinced of it in certain cases, that in such I shall not, for the future, hesitate to perform it when they occur.
AMPUTATION.

Concluding Observations.

It still remains for us to notice two proposals, one of which is directed to the prevention, the other to the improvement, of the operation of amputation. In cases of ferulous tumours, or as they are termed, white swellings of the joints; of collections of matter in the cavities of joints, which often follow upon simple inflammation; of gun-shot wounds and compound fractures of the joints; and, in the most simple, but, at the same time, penetrating wounds, a variety of nodid symptoms take place, which render timely amputation of the limb the only means by which the unfortunate patient's life can be saved. In these cases, when they affect the knee and elbow-joint, Mr. Park has proposed, instead of amputating the whole limb, as is generally practiced, another remedy, which consists in the complete extirpation of the joint, or rather, in the amputation of the extremities of the bones which form the joint, together with the whole, or at least the greater part of the capsular ligament, the cure is afterwards effected by means of callus, which occupies the place of the bones that have been fawn off, or the femur is attached to the Tibia by a synoves. But in the elbow, the humerus synoves with the radius and ulna, without the joint retaining any perceptible power of motion. With this view he made the following experiment:

Two inches above the upper end of the patella he made an incision, and carried it down to its lower extremity; he then placed the leg in an extended posture, and made a cross incision immediately above the patella, through the tendon of the extensor muscles, down to the bone, and nearly half round the limb, so as to form a right angle with the former incision. The lower angles which were formed by this incision, he widened so as to lay bare the capsular ligament, and took out the patella. The upper angles he likewise widened, so as to lay bare the head of the femur, and to enable him to pass a small knife across the posterior flat part of the bone immediately above the condyles, taking care to keep one of the flat sides of the point of the instrument close to the bone all the way. He then withdrew the knife, and introduced an elastic spatula in its place, to guard the soft parts during the sawing through of the femur. He then carefully dissected out the head of the femur that had been fawn off. The head of the tibia was then easily turned out; this he fawed off, and cut away as much as possible of the capsular ligament, leaving only the posterior part to cover the veils, which he found, upon examination, to be not only unhurt, but also that they were sufficiently covered with the remaining part of the ligament, and that, during the whole of the operation, they had been sufficiently far from the course of the knife. Although the wound had a formidable appearance, he saw no reason to doubt that nature would be able to repair the breach; as the limb below would not be deprived of its nourishment, and every healthy flesh-covered surface, both of bone and of soft parts, has a natural tendency to granulate.

The next operation he performed upon the elbow-joint. He made an incision, commencing two inches above the tip of the olecranon, and terminating at the same distance below it; he then raised the integuments, and endeavoured to separate the lateral ligaments from each other, in order that he might be enabled to draw the bones asunder. But as he found this to be difficult, he first fawed off the olecranon, whereby he loosened the joint to that degree, that he could easily draw it asunder, without being under the necessity of making a cross incision. He then turned out the lower end of the humerus, and fawed it off, and afterwards the heads of the radius and ulna. He does not, however, flatter himself that this method will prove equally successful in all cases; as, in some, amputation is indispensably necessary; for example, when the disease has spread too far, when the soft parts are too much injured, and the caries too extensive. In general, he thinks the operation is more to be recommended in cases of external injury than in ferulous affections.

The other proposal, which has Mr. Wrabetz for its author, refers to the amputating of limbs without the knife, by means of ligatures. Mr. Ploucquet (von der unblutigen Abtheilung der Glieder. Tuebingen, 1789, St.) describes it as follows: Take a flaxen, or rather a cotton cord, of thicknesses and strength proportionate to the size of the limb; lay it in spirit of turpentine, mixed with fine powder of tobacco-leaves, the seeds of the ruta, cantharides, and camphor; and after it has lain in this liquid for the space of twelve hours, apply it to the limb in the following manner. Draw back the skin as much as possible towards the found part of the limb, and apply it above the dissected part round some perfectly found part of the limb; draw it tight with a turn-stick, and secure the latter. About two inches above the cord rub a quantity of the above-mentioned mixture, till small blisters are raised, which must be opened and dressed with a drawing platter. By this application and by poultices the requisite degree of inflammation is promoted. As long as the cantharides are employed, the use of which is very beneficial to debilitated habits, the patient must drink mucilaginous liquors, with which cordials are to be combined, such as camphor, Peruvian bark, arnica, &c. and, at the same time, blood-letting and refrigerant remedies, especially nitre, are to be administered. As the cord sinks into the flesh, and grows looser, it must be tightened; and the crevice which it leaves above it must be filled up with a fine powder of Peruvian bark, camphor, and alum, in equal parts. This powder may also be made into a limenium with oil, hypericum, and rubbed into the above-mentioned crevice. That part of the limb which we wish to separate should be swathed in a cloth soaked in a mixture of a solution of alum, lime-water, and some aromatic spirit. Mr. Wrabetz has in one case succeeded in amputating the humerus according to this method, and affirms us, that he has often separated small limbs by means of ligatures; it is, however, a practice that cannot be recommended for imitation, although Mr. Marguet has endeavoured to demonstrate the advantages of this operation; for, on the one hand, his observations are too defective to prove anything, and on the other, the operation should only be attempted in a perfectly similar case.

For an account of the means of suppling defective members, see Limbs, artificial.

AMPUZITZA, in Geography, a town of Befarabia, 26 miles well-north-west of Ismail.

AMPYX, in Antiquity, a kind of golden chain, which served to bind the hair of the horses on the forehead. Homer describes by this ornament the fleeds of the god of war, calling them χέρσυκτιβο. The term was afterwards used more generally to denote a band or fillet, which formed a part of the drefs, and which encompassed the hair. It was sometimes encircled with gold and precious stones.

AMRAM, in Scripture Biography, was the son of Koath, of the tribe of Levi, and married Jochobed, by whom he had Aaron, Miriam, and Mofes. He died in Egypt, aged 137. Exod. vi. 20.

AMRAN, in Geography, a town of Arabia, 20 miles north-west of Sana.

AMRAPHEL, in Scripture History, was king of Shinar, and confederate with Chedorlammon, king of Elam, and two other
other kings, in making war against the kings of Sodom, Gomorrah, and the three neighbouring cities. The kings, who were in league with him, plundered these cities, and carried off many captives, among whom was Lot, Abraham's nephew; but Abraham pursued them, retook Lot, and recovered the spoil. A. M. 2092, B. C. 1912.

AMRAS, in Geography, a castle or palace of Germany, in the county of Tyrol, called by some writers Ars Ambrosiana, and also Ondera, and situate at the foot of a mountain, two miles south west of Innsbruck. In the heat of Summer it is a place of retirement for the arclidukes. It is famous for its collection of antiquities, gold medals, cameos and intaglios, most of which were sent to it by Charles V. On the walls and ceilings are many curious paintings, and one, in particular, of Noah's ark by Baffano, for which the grand duke of Tuscany is said to have offered 100,000 crowns. Here are also a library, a gallery full of bulbs, and many pictures of great value. N. lat. 47°. E. long. 11°. 40'.

AMRU, or ABRU, ED-AL-AS, in Biography and History, a famous Suraee commander, was the dubious progeny of Aai, of the tribe of Koreib, by a notorious prostitute. In his youth he was impelled by the passions and prejudices of his kindred: his poetic genius was exercised in satirical verses against the person and doctrine of Mahomet; and his dexterity was employed in the reign of faction, to pursue the religious exiles who had taken refuge in the court of the Ethiopian king. From this embly he returned a secret profyle, having renounced the worship of idols; and making his escape from Mecca with his friend Caled, he joined the fugitive prophet at Medina. His inpatience to lead the armies of the faithful was checked by the reproof of Omar, who advised him "not to seek power and dominion, since he who is a subject to-day may be a prince to-morrow." Amru, having acquired a high degree of military reputation, was the chief in Iraq, when Caled summoned all the Arabian generals to his assistance, in the siege of Damascus. In Paleflme, he served during the Caliphate of Omar, under Abu Obeidah, who was the commander in chief. On his arrival in this country he was informed, that Constantine, the son of the emperor Her- chius, lay encamped with a body of troops near Caesarea. As he was advancing towards the siege of this city, this prince deputed some Christian Arabs to reconnoitre the Moslem camp; when one of them was discovered, and cut to pieces. Amru was much offended, and issued orders that all spies should be brought to him for examination, before they were thus punished; alleging, that such spies might probably, in case of conviction, rather embrace Islamism than suffer death. About this time Constantine expressed a desire to have a conference with Amru. When the Arabian chief was introduced to the prince, he declined making use of a feast that was offered him, and took his place crofs-legged on the ground, after the Arabian manner, with his sword upon his thigh, and his lance laid across before him. Constantine made overtures for a pacification, but they were rejected with great insolence by Amru, who inflicted upon his paying tribute or embracing the religion of Mahomet. This conference closed with a declaration on the part of Amru, "that the Arabs were tired of living in their scourging defects, and were resolved to re-enter into the possession of the delightful country, which was the inheritance of their progenitors." Accordingly both parties prepared for action; which terminated in the capture of Caesarea by Amru, and the subjugation of all the maritime towns of Syria. A. D. 638. Upon the death of Obeidah, Amru assumed the chief command in Syria, in which, notwithstanding the opposition of Othman, he was confirmed by Omar. Determining to proceed to Egypt, he left his station at Gaza, and advanced forward at the head of only 4000 Arabs; but in his progress he was overtaken by a messenger from Omar, with instructions contained in a letter which he did not open, because he entertained some suspicion of its contents, till his tents were pitched within the territory of Egypt. "If you are still in Syria," said the ambiguous mandate, "retreat without delay; but if, at the receipt of this epistle, you have already reached the frontiers of Egypt, advance with confidence, and depend on the favour of God and of your brethren." After perusing this letter in the presence of his officers, he declared his ready obedience to the commands of the Caliph. After a siege of 30 days, he took possession of Faramah or Pelhium, and this key of Egypt, as it has been justly called, unlocked the entrance of the country, as far as the ruins of Heliopolis, and the neighbourhood of the modern Cairo. From Pelhium, he marched to the ancient Memphis, or Misrâh, the siege of which was protracted to seven months; and as the invaders were, by this delay, threatened with the inundation of the Nile, they formed the place and drove the remnant of the Greeks to their boats and the isle of Ronda. On this spot, the eastern bank of the Nile, recommended to the conqueror by its easy communication with the gulf and the peninsula of Arabia, he built a city called Foaft; and the contiguous quarters of Babylon and Foaft are confounded in their present decay, by the appellation of old Misrâh or Cairo, of which they form an extensive suburb. After this conquest, the Coptic Chrlstians, or Jacobites, negociated, by means of their governor, Mokawas, a treaty of peace and amity with Amru; agreed to pay a stipulated tribute; sworn allegiance to the Caliph, and promised an hospitable entertainment of three days to every Mussulman, who should travel through their country. Their patriarch Benjamin, at the earnest request of Amru, emerged from his desert; and, after the first interview, the courteous Arab affected to declare, that he had never converted with a Christian priest of more innocent manners and a more venerable aspect. In the march from Memphis to Alexandria, the lieutenant of Omar entrustted his safety to the zeal and gratitude of the Egyptians; and in every step of his progress, he could depend on a constant supply of provisions and intelligence. The fugitive Greeks were pursued to Alexandria, and the road thither was laboriously cleared by the victorious Saracens, in 22 days of general or partial combat. After a siege of 14 months, and the loss of 25,000 men, the city was taken A. D. 640. See Alexandria. During the progress of this memorable siege, Amru "was betrayed by his imprudent valour; his followers, who had entered the citadel, were driven back; and the general, with a friend and a flave, remained a prisoner in the hands of the Chrlstians. When Amru was conducted before the prefect, he remembered his dignity and forgot his situation; a lofty demeanour, and reftate language, revealed the lieutenant of the Caliph, and the battle-axe of a foilder was already raised to strike off the head of the audacious captive. His life was saved by the readiness of his fiate, who instantly gave his master a blow on the face, and commanded him, with an angry tone, to be flent in the presence of his superiors. The cedulous Greek was deceived; he listened to the offer of a treaty, his prisoners were dismissed in the hope of a more respectable emblamy, till the joyful aclamations of the camp announced the return of their general, and inspired the folly of
of the infidels." After the capture of Alexandria, the whole of Egypt soon submitted to the arms of the conqueror; and in the administration of it he balanced the demands of justice and policy. In the management of the revenue he disapproved the simple, but oppressive mode of a capitation, and preferred with reason a proportion of taxes, deducted on every branch, from the clear profits of agriculture and commerce. A third part of the tribute was appropriated to the annual repairs of the dykes and canals so essential to the public welfare. Under his administration the fertility of Egypt supplied the dearth of Arabia; and a string of camels, laden with corn and provisions, covered almost without an interval the long road from Memphis to Medina. The genius of Amru opened the maritime communication which had been attempted or achieved by the Pharaohs, the Ptolemies, or the Cæsars; and a canal, at least 80 miles in length, was opened from the Nile to the Red Sea. From Egypt, Amru extended his conquests to the neighbouring parts of Africa; but on the accession of Othman, he was superseded in his government of Egypt by Abdallah-ebn-Said. The dissipation of Amru was considered as a public loss, and even disposed the Egyptians to revolt. This change in the sentiments of the people induced Constantine, the Greek emperor, to meditate the reduction of Alexandria, and he readily effected his purpose. Upon this loss Amru was restored to his former dignity; and employed in the recapture of the city. After a vigorous resistance, on the part of the beleaguered, and great slaughter, he took it by storm; and though by his authoritative interposition he restrained the massacre of the inhabitants, he dismembered it, and utterly demolished all the walls and fortifications. After this exploit, he was again displaced by Abdallah, and recalled to Medina; but Othman found it necessary to avail himself of his influence in quelling a faction, which he was unable to effect.

Upon the accession of Ali, Amru joined the malcontents, and quitting his command in Palestine, arrived at Damascus, which was then the residence of Moawiyah, the competitor of Ali, and swore allegiance to him. When it was proposed to decide the difference between these two rivals by single combat, Amru persuaded Moawiyah to accept the challenge; but he declined it, and ascribed Amru's recommendation of it to selfish motives, and to his desire of obtaining the caliphate for himself. Notwithstanding this unjust suspicion, Amru maintained his attachment to Moawiyah, and served him in the business of the arbitration between these two competitors. See Ati. He also took possession of Egypt in Moawiyah's name, after having defeated Mahomet-ebn-Abubeker, Ali's governor, whom he took prisoner, and put to death in a barbarous manner. Amru was now considered of such importance, that he was one of the three confiditards, whom the right of the Kharijites determined to affilliate, with a view of refooming peace to the Saracen empire. Amru fortunately escaped; being prevented, by a fit of the colic, from attending in the mosque on the day when one of the confiditards went to kill him, but Kharijah, a friend whom he appointed to perform the office of Imam, as his substitute, was slayed by the confiditard, who maimed him for Amru, and fell down dead with the blow. In the year of the Hegirah 43, a.D. 663, during the caliphate of Moawiyah, Amru ended his days in the palace city, which he had founded on the banks of the Nile. Of him Mahomet is reported to have said, that there was not a Moslem more sincere and steadfast in the faith than Amru. He was justly esteemed one of the greatest men amongst the Arabs of the age in which he lived; distinguished by his quick apprehension, solid judgment, undaunted courage, and singular resolution, as well as his profound sagacity and penetration; always excellent in his advice, firm in his purpose and fpercy in its execution. The two first successors of Mahomet were not insensible of his merit. To his arms they were indebted for the conquest of Palestine; and in all the battles and sieges of Syria, he united with the temper of a chief, the value of an adventurous soldier. In a visit to Medina, the caliph wished to survey the sword which had cut down so many Christian warriors; Amru undeathed a short and ordinary fcytneyar; and as he perceived the surprize of Omar, "Alas!" said the modest Saracen, "the sword itself, without the arm of its master, is neither sharper nor more weighty than the sword of Pharezidak the poet." This saying is preserved by Poseck, and justly applauded by Mr. Harris, in his Philosophical Arrangements, p. 350. After the conquest of Egypt, Amru was recalled by the jealousy of the caliph Othman; but in the subsequent troubles, the ambition of a soldier, a statesman, and an orator, emerged from a private station. His powerful support, both in council and in the field, established the throne of the Omnanides; the administration and revenue of Egypt were restored by the grace of Mahomet to a faithful friend, who had raised himself above the rank of a subject; and in the possession of this lucrative dignity his life terminated. His dying speech to his children, in which he deplored the errors of his youth, and particularly his offence in latarizing Mahomet, is celebrated by the Arabsians as a model of eloquence and wisdom. Ockley's Hist. of the Saracens, vol. i. and ii. Mod. Un. Hist. vol. i. p. 315; &c. Gibbon's Hist. vol. ix. p. 475; &c.

AMSDEG, in Geography, a town of Switserland, in the canton of Uri, seven miles south of Altorf.

AMSDORF, Nicholas, in Biography, a Lutheran divine, was born at Meissen, in 1483. After studying at Wittenberg, he became a disciple of Luther, who appointed him minister of Magdeburg, and afterwards of Naumburg. He was distinguished by his opposition to the Roman Catholics, and by his controversy with Melanthon and his adherents, on the subject of good works; in the heat of which he extravagantly maintained, "that good works were an impediment to salvation." From this imprudent and unwarrantable expression, the flame of controversy received new fuel, and broke forth with redoubled fury. The tenements of Melanthon in opposition to those of Luther and his partizans, were ably defended by George Major, an eminent teacher of theology at Wittenberg; who, in 1552, maintained the "necessity of good works," against the extravagant affections of Amstorf; who died at Magdeburg in 1541.

AMSDORFIANS, in Church History, a sect of Protestant, in the 16th century; were so denominated from their leader Amstorf. They maintained, that good works were not only unprofitable, but even opposite and pernicious to salvation. Molinch's Eccl. Hist. vol. iv. p. 328.

AMSEGETES, in Antiquity, those whose grounds abutted on the highway. Vide Feit. de Verb. Signif. in voc.

The laws of the Twelve Tables decree, amsegetes vivam munianto.

AMSMOE, in Geography, an island in the German Ocean, near the west coast of Denmark. N. lat. 54° 40'. E. long. 20° 25'.

AMSTEL, a river of Holland, which passes by Amsterdam, and joins the Y or Wye.

AMSTELAND, a small district of South Holland, takes
AMSTERDAM.

AMSTERDAM, or Amsterdam, formerly called Amstel, i.e. the dam or dyke of the Amstel, the capital of Holland and of the United Provinces, is situated at the influx of the river Amstel from which it derives its name, into the arm of the sea, called Y or Wy, and which forms a port, capable of receiving a thousand large vessels, about two leagues from the Zuider sea. Although the Pampus, which is the only channel leading to it from the sea, is shallow, and ships of considerable burden are lightened before they can pass through it; and they are afterwards under a necessity of waiting for an easterly or north-easterly wind, in order to proceed through the Maasdiep into the North sea; yet upon the whole, its commercial situation is advantageous, on account of its easy connection with the other towns of the province, and its small distance from all the ports of North Holland, Friesland, Overcyst, and Gelderland. The soil, on which this city is seated, is marshy, and therefore its buildings are founded on oak piles, which gave occasion to the witticism of Ermans, "that in his country vast multitudes of people lived on the tops of trees." This circumstance restricted the use of coaches to great men and physicians, who paid a tax for this privilege; and goods are conveyed from one part of the town to another on sledges.

In the beginning of the 15th century Amsterdam was a very insignificant fishing town, containing a few huts that were the residence of persons engaged in this occupation; but its inhabitants were gradually multiplied, and the earth of Holland gave it the title and privileges of a city; nevertheless, till the year 1390, it was surrounded merely by a weak pallisado. At this time it was encompassed by a wall of brick, constructed by order of Mary of Burgundy, in order to defend it from the incursions of the inhabitants of Utrecht, who were frequently quarrelling with the Hollanders; but it was soon afterwards reduced to ashes. The people of Gelderland besieged it in 1415, but not successully in their attempt to take it, they set fire to the ships in the harbour. In 1420, the town-house of Amsterdam was attacked by a party of wild enthusiasts, under an anabaptist leader; but they were defeated by the citizens, and most of them were cut to pieces. Tumults of a similar kind were renewed by persons of the same description in 1533, (see Anabaptists,) and these were followed by a regular and deep-laid conspiracy against the magistrates of Amsterdam, with a design to wrest the government of the city out of their hands. Van Geelen, the head of these insurgents, marched his fanatical troop to the town-house, on the day appointed, with drums beating and colours flying, and fixed there his head-quarters. He was attacked by the burgsters; assisted by regular troops, and headed by several of the burgomasters of the city; and after an obstinate resistance, he was surrounded, with his whole troop, and they were put to death, in the fevered and most dreadful manner. In 1578, Amsterdam was besieged by the Hollanders, and after a resistance of ten months, capitulated; on this condition, among others, that the Roman Catholics should be allowed the free exercise of their religion. The condition, however, was not observed by the Protestants; for they drove the ecclesiastics, monks, and nuns, out of the city, broke the images, and demolished the altars. From this time Amsterdam became the general rendezvous of persons of all ranks and nations; and by them it was raised to that degree of splendour and magnificence to which it afterwards attained, and which it long continued to enjoy. The city has been frequently enlarged to accommodate its new accession of inhabitants; particularly in 1575, 1579, 1612, and 1675; and in 1675 it was extended by its present line, surrounded by a wall and a large ditch, 80 feet wide, and full of running water, and fortified on the land side with ramparts and 26 bastions, on each of which were afterwards placed a windmill. It has also eight gates towards the land, and one towards the water. The land side of the town may be easily monkeys. Amsterdam is intersected by several navigable canals, which divide the town into a number of islands, joined to each other by wooden and stone bridges, and which are connected with the Wy and the Amstel. These canals, on the side of which are generally planted rows of trees, serve the convenience of trade, and contribute to render the streets through which they pass clean and pleasant; though in hot and calm weather they occasionally emit fetid effluvia. Of these canals the principal is that called the Ammarrack, formed by the waters of the Amstel, which admits the influx of the tide, and it has on its side two large quays. It has also several bridges; the chief of which, next the sea, is called Pont Neuf, or the New Bridge; it is 600 feet long and 70 broad, with iron balustrades on each side; it has 36 arches, 11 of which are very lofty, and eight are shut up to include the yachts. This bridge affords a fine prospect of the city, port, and sea. The port is a mile and a half in length, and above 1000 paces in breadth; and it is filled with a multitude of vessels, the masts of which appear like a forest, and forming a kind of floating city. Towards the side of the Wy, or of the haven, the city is inclosed by double rows of piles, driven into the ground, and connected by large horizontal beams. Between these piles are openings, through which the ships pass in and out, and which are shut every evening at the ringing of a bell. The streets are generally narrow, but well paved, and the houses, which are built of brick or stone, have the air of neatness, peculiar to those of the Dutch. In the interior of the city there are agreeable walks, but the communication with the environs is chiefly by water; though there is a pleasant road to Oudekirk, through gardens and groves. The population of Amsterdam is estimated at 212,000 persons; and its commercial connections supply a very considerable, but fluctuating, accession of foreigners, who resort to this city from all nations, and are tolerated in their religious worship, though the government is restricted to persons of the reformed or Calvinistic profession. For persons of this profession, which is the established religion of the country, there are eleven churches, whose ministers are maintained by the state, and which are allowed the use of bells. The English have also had three churches; one for the Presbyterians, whose ministers have been paid by the magistracy; a second for the church of England, provided for by his Britannic majesty; and a third for the Brownists, who maintain their own ministers. These churches or congregations were formerly estimated to comprehend about a third part of the inhabitants. The Roman Catholics, who had about 27 places of worship appropriated to their use, amounted to another third part of the population; and the other third part included Jews, Lutherans, Arminians, Anabaptists, &c. The Jews had two synagogues, one of which, viz. the Portuguese, is the largest in Europe; and annexed to it are several
fearful school-rooms, in which children are taught the Hebrew language, and instructed in the Jewish religion. The most remarkable of the churches at Amsterdam is that called the New Church, and dedicated to St. Catherine. It is said to have been begun in 1408, or 1414, and not to have been finished for 100 years. The bell-tower, intended to be constructed before this church, and standing upon a great number of piles, is not yet completed. The pulpit is a curious 44-structure, and is adorned with various kinds of sculpture, particularly that of the four evangelists. The paintings in the glass windows exhibit, amongst other figures, the emperor Maximilian presenting an imperial crown to the burgomasters of Amsterdam, for the erection of the arms of the city. The organ has been much admired and extolled, on account of its size, and its powers of execution. It has a set of pipes that counterfeit a chorus of voices, and has 52 whole stops, besides half stops, with two rows of keys for the feet, and three rows for the hands. Its sound, when it plays, seems to resemble that of the human voice. The grate, by which the chancel is separated from the body of the church, is constructed of Corinthian bafia. The branches of the candlesticks are the richest in the seven provinces. In the church is a marble monument, erected to Admiral Ruyter, who was killed at Medina.

The largest and most latelv edifice, not only of Amsterdam, but of all the United Provinces, is the Stadhuis, founded in 1648 on 13,059 piles, and comprehending in breadth 282 feet, in depth 238, and in height 110 feet. On the front is a marble pediment, on which is a female figure in relievo, holding the arms of the city, seated in a chair, which is supported by two lions, and bearing an olive branch in the right hand; on each side are four Naiads, presenting her with a crown of palm and laurel, and two other maritine goddesses, offering her different sorts of fruit; there is also Neptune with his trident, accompanied with Tritons, a sea-unicorn and a sea-horse. Above are placed three statues in bronze, representing justice, strength, and plenty; and on the top of the structure is a round tower, 50 feet above the roof, adorned with figures, and an harmonious chime of bells, the biggest of which weighs about 7600 pounds; and they are made to play different tunes every month. The entrance into this edifice is by seven doors, intended to represent the seven Provinces. In the great hall are two globes, celestial and terrestrial, made of black and white marble, and inlaid with jasper and copper, 22 feet in diameter, and 60 in circumference. All the chambers are enriched with paintings, carvings, and gildings. Under the stadthoude is the treasury of the bank of Amsterdam, which is strongly secured, and entrusted to the care and inspection of the burgomasters, and opened only at the presence of one of them. In other vaults are the prisons for debtors and criminals, and also the guard-room for the citizens, in which the keys of the city are deposited every night. At the end of the great hall is the chamber of the schoppen or aldermen, where civil causes are tried; and there are also other apartments and offices of various kinds. In the second story is a large magazine of arms; and in the top of the building are fixed large cisterns of water, as a supply in case of fire, for the prevention of which the chimneys are lined with copper.

Another public building that deserves notice is the bourse or exchange, constructed of free-stone, and standing upon 2000 wooden piles. Its length is about 250 feet, and its breadth 140. The galleries are supported by 26 marble columns, upon each of which are the names of the people that are to meet there. They are all numbered; and there is a place fixed for every merchandise, under some one of these numbers. A superb staircase on the right hand of the gate leads to the galleries; on one side are several shops, and on the other a place in which cloths are sold. This exchange resembles that of London. The admiralty-office is in a house which formerly belonged to the princes of Orange. The arsenal for their men of war, 250 feet long and 22 feet broad, is in the harbour; and contains, on the ground floor, bullets, on the second the arms and ordnance, and on the third, smalls, pulleys, flags, &c. and many curiosities. The conservatory of water on the top of the building holds 1500 tons of water, which, in case of fire, may be distributed into 16 different parts, by leaden pipes. Near this edifice is the dock or yard, in which the men of war are built, and which is 528 feet long. The East India company occupy a large building, divided into several offices or apartments, which serve as magazines or warehouses for goods of various kinds. They have also a kind of arsenal, of considerable extent. The academy, called "the illustrious school," is also a good building; it was formerly a convent belonging to the nuns of St. Agnes; it is now devoted to instruction in Latin, the oriental languages, theology, philosophy, history, &c. The lawyers and physicians have likewise their schools. Besides these, there are several hospitals, or houses for the accommodation and relief of the aged, orphans, of sick persons, of persons infected with the plague, and of lunatics, &c. The principal houses of correction are the rapf-houde and spin-houde. In the former offenders are employed in sawing and rapping Brazil wood; and those who will not perform their task are placed in a cellar, into which the water runs, so that if they neglect to work the pump, they are exposed to the danger of being drowned. The spin house is appropriated to daubed women; in this they are employed in spinning wool, flax and hemp, and other work. The hospitals are maintained partly by voluntary contributions, for receiving which the poor's boxes are fixed in different parts of the city, and partly by taxing all public diversions. Those who have the management of the public charities are called, "deacons." The governors are selected from the most considerable persons in the city, and are nominated by the magistrates.

The places of diversion appropriated to the lower classes are called, "feul houdes," in which the amusements are music and dancing. To this city belong two suburbs, one at the end of the regulars, and the other extending as far as Overtoon, a village at a small distance, where boats that come from Leyden are forwarded over land upon wooden rollers.

Amsterdam is governed by a senate or council, called Vrouediep, and composed of 36 persons, who represent the whole body of the people, and are invested with the supreme power. Their office is for life, and the survivors supply vacancies occasioned by death. This senate elects deputees to be sent to the states of Holland, and appoints the chief magistrates, called "burgomasters," or "echevins," reenacting our aldermen. Their number is 12, and four of these are annually chosen to execute the office, and are denominated "burgomasters regent." Three are dismissed every year, and three new ones supply their places. During the term of the office of each, which is three months, they may be compared to the lord mayor of the city of London. To them it belongs to dispose of all offices, that become vacant during their regency. They have likewise the direction of all public works, which concern the safety, peace, and embellishment of the city. The keys of the bank of the city are in the custody of these magistrates.

The college consists of new burgomasters, who are judges
in all criminal affairs, without appeal; but in civil causes they may appeal to the council of the province. There are two treasurers, a bailiff, and a provost. The bailiff continues in office three years, and it is his business to search after criminals, to take care of their prosecution, and to superintend the execution of sentence. The provost is the head of the magistracy, and is supposed to be well versed in the laws; and it is his province to defend the interests of the city.

Amsterdam has in former times contributed to the public income tax above 5,000,000 beavers per day, besides the eels of beer, flesh, and corn, which amounts to above 1,600,000 a year; and this sum is more than the amount of the payments of all the other provinces; and yet Amsterdam bears the 8th rank in the assembly of the states of Holland, with this distinction, that as the other cities send two members, this sends four.

The militia of Amsterdam is considerable, and has usually consisted of 60 companies, each of which has from 200 to 300 men. From this service the Jews and Anabaptists are excluded, as they are not allowed to bear arms: but they are obliged to contribute to the maintenance of the city-guard, which is composed of 1,500 soldiers, and to the night-watch, who patrol about the streets, and proclaim the hour. Besides these, there are trumpeters on every church clock, who sound every half-hour; and if a fire happens, they ring the fire bells, and announce where it is. The trade of Amsterdam, before the late war, and the revolutions and changes that have attended it, was very great; and it was justly regarded as the magazine or store-house of Europe.

What alterations may take place in its internal government or foreign relations, in consequence of the peace that has been lately established, cannot now be ascertained. Amsterdam is distant 44 leagues from Brussels, 49 from Liège, and 112 from Paris. N. lat. 52° 22' 45". E. long. 4° 45' 30'.

Amsterdam, now called Tongataboo, an island in the South Pacific ocean, fail to have been discovered by Tasman, a Dutch navigator, in 1643. It was visited by Captain Cook, and other later navigators. Its extent is about 16 miles in length, and its greatest breadth about eight. It is about 64 leagues west of Middleburgh. S. lat. 21° 3' 9'. W. long. 174° 40'.

The shore of this island is surrounded by a coral rock, and its most elevated parts are not above six or eight yards above the level of the sea. Its interior parts are highly and universally cultivated, the whole island consisting of inclosures, with red fences, about six feet high, intersected with innumerable roads; and its plantations supply some of the richest productions of nature. It abounds with bread-fruit, cocoa-nut trees, plantains, bananas, flaxdocks, yams, sugar-canes, and a fruit like a nectarine, called by the natives "fighega." Caffirinars, pandangs, and wild fago palms appear here with their various tints of green, and barringtonia of the size of the largest oaks. As the coral rock, which forms the basis of this spot, is but thinly covered with mould, the bread-fruit does not thrive with the same luxuriance as at the Society islands; neither does this island afford an equal supply of water, though the ships were furnished with as much as they wanted from a pool to which they were directed by the chief.

The men and women are of the common European size; their colour is that of light copper; and they are well shaped, have regular features, and are lively and active. They have fine eyes, and in general good teeth even to advanced age. The women are merry and talkative; many of them are modest, and others of a different character. They swarm about the ships, without any covering, like amphilobous creatures; and were easily persuaded to come on board; though they would not stay after sun-fret, but returned to pass the night on shore with the other inhabitants, under the shade of the wood that lined the coast, where they had large fires, and were heard conversing together aloud during the whole night. Their hair is black, and worn short, excepting a lock on the top of the head, and a small quantity on each side. The men shave their beards close by means of two shells; and the hair of many was observed to be burnt at the ends, and burned with white powder, which was found to be lime made of shell or coral, which had tinged the hair; some used blue powder, and others an orange-coloured powder, made of turmeric. The dres of both sexes consisted of a piece of cloth or matting, wrapped round the waist, and hanging below the knees. From the waist upwards they were generally naked; and it seemed to be a custom with them to anoint those parts of the body every morning. The practice of tattooing, or puncturing the skin, prevailed amongst them; the men performed this operation from the middle of the thigh to the part above the hips; the women performed it lightly and only on their arms and fingers. The ornaments worn by men as well as women, are amulets, necklaces, and bracelets, the bone, shells, and heads of mother-of-pearl, tortoise-shell, &c. The women also wear on their fingers nuts rings, made of tortoise-shell, and occasionally pieces in their ears, about the size of a small quill. They have also a curious apron, made of the cocoa-nut shell, and composed of a number of small pieces, disposed as to form flars, half-moons, little figures, &c. and frizzled with beads and shells, and covered with red feathers, so as to produce an agreeable effect. They have cloth similar to that of Otaheite, but not so fine; and they have a method of glazing it, which renders it more durable, and capable, for some time, of withstanding rain. Their colours, which they procure from vegetables, are black, brown, yellow, purple, and red. Of matting they have different sorts, used for clothing, for bedding, and for fails to their canoes; they have also several kinds of baskets made of the same materials with their mats, or of the twisted fibres of the cocoa-nut, which they form of different colours, and add with beads made of shell or bones. They appear to be ingenious in designing and executing various articles of this kind. Their fishing implements are much the same with those of the other islands; their nets are formed of strong though slender threads. Although their disposition is friendly, they possess very formidable weapons; some of their spears being furnished with many bars. This island is often visited by the blood of human victims; nor do the ideas of property, which prevail among the inhabitants, prevent their feeding from strangers. The Millionaries, in their voyage, some of whom were left on this island, imparted useful arts to the natives; but the rats were found very destructive to the European plants. Thieves, with hogs, dogs, and guanos, were the only quadrupeds in the islands, till cats were left there in 1797. The morais are here called fatookas; and are constructed in the form of terraces, with high steps, and the material of which they are formed is coral. In the missionary voyage of 1797 there is an interesting map of this island.

Amsterdam, an uninhabited island in the Frozen Sea, near the west coast of Spitzbergen. This is also the name of an island in the Indian Sea. S. lat. 38° 42'. E. long. 76° 54'. (for an account of which, see St. Paul); and another in the Chinese Sea, between Japan and the island of Formosa.

Amsterdam, New, a name originally given by the Dutch to the city of New York, in America. Amsterdam
is also the name of a new township in Montgomery county, New York; containing 235 inhabitants, who are electors.

AMSTOTTEN, a town of Germany, in the arch-ducny of Austria, eight miles south-west of Ips.

AMTZITZ, a feigncy of the circle of Guben, in Lusatia, containing the market town of Amitz, with a citadel, and several villages.

AMTRUSTIO, in Ancient Charters, denotes a sworn or liege tenant, or vassal, of the ancient French or German kings.

The word is also written antryftia. Spelman derives it from the German ant, of the English tyrple.

AMTSZELL, in Geography, a town of Germany, in the circle of Swabia, eight miles east of Ravensburg.

AMU, or Amol, or Amu-Daria, called also Gihon, and said to be the Oucus and Baxuras of the ancients, a river of Independent Tartary, in Basharia, which formerly discharged itself by two channels or mouths into the Caspian sea; but these are become dry, and the stream has been diverted by art into the sea or lake of Aral. In the reign of Cyrus it was the boundary of the Persian monarchy, and some authors have supposed it to be the Araxes of the ancients. Its source is in the mountains of Paropamissus.

AMU. See Amol.

AMUDA, in Ancient Geography, a town of Syria, distinguished in the Notitia Imperii from Amida; but its situation is not known.

AMUDARSA, a town of Africa Propria, in the territory of Bizzarum, mentioned by Antonine, and placed by M. d'Anville north of Septinumica. It was an episcopal see. ALEOIR.

AMULET, Amuletum, formed from amuleïri, to remove, a kind of external medicament, to be worn about the neck, or other part of the body, for preventing or removing diseases. Such are quills of quicksilver, or arsenic, which some hang on the neck, or wear under the skirt, against the plague, and other contagious diseases; as also the bloodstones worn by others against hemorrhages; and that worn by the women of the East Indies to bring the menstru.

Amulets are also frequently no other than a sort of spells, or charms; consisting of quaint words and characters, supposed to have the virtue of warding off mischief, witchcraft, and disease, and to which credulity and superlition have annexed wonderful properties. Pliny makes frequent mention of them.

Perfons of all ages and nations have used them. The materials of which they were formed, the characters inscribed upon them, and the superstitious ceremonies with which they were prepared, were various. Amongst the ancient Egyptians they were very common, and those denominated abraxas were peculiarly distinguished. The Persians, having observed in Egypt the practice of suspending to the neck small cylinders, adorned with figures and hieroglyphics, adopted a similar custom, and instead of the Egyptian deities, they sublimed representations of subjects deduced from their history and theology, and annexed to them hieroglyphical characters, disposed in the form of a prayer, which, in the opinion, gave a secret virtue to these amulets. A similar practice prevailed also among the Ethiopians. The Jews confined in their efficacy for driving away diseases, and they are prohibited by the Mishna, unless they had been effected in the cure of least of three persons. Christians also in former ages had recourse to amulets, made of the wood of the crosb, or ribbands with texts of scripture written upon them, as preservatives against diseases.

AMU.

The Greeks called this kind of remedies φαντασμα, phantasia; σαμποντα, sampon, τανθρακας, tanthracas, βεσκας, and χαφας. The Latins call them amuleta, amuletum, punctula, &c.

Some think this word derived from amula, a small vessel with a little water in it, anciently carried in the pocket by the Romans, for the sake of purification and expiation. This last opinion appears the more probable, in that some amulets were made in the shape of little vessels, as appears from the testimony of Plinius, who observes, that pieces of amber, cut in form of little vessels, were hung about children's necks for amulets.

Amulets are by some considered as a natural species of talisman. Others rather make talismans a species of amulets. The bulla, worn by the ancients; the abxaras of the Basilians, &c. were also amulets. See Abraxas, Abracadabra, and Talismen.

The ancients made great use of gems for amulets; the whole East, according to Chilfort, wore a kind of Jasper for this purpose.

That species of amulets compounded of poisons, used as preservatives from the plague, are more particularly denominated semenba.

Under amulets, some also include medical or other substances fixed to brutes, or even plants, to preserve them from certain diseases and dangers.

Charms, words, scrolls, magic figures and numbers, make a large class of amulets, to which the Turks are still greatly devoted. Their amulets, called chaimalt, are little bits of paper of two or three fingers breadth, rolled up in pieces of silk, containing short prayers or sentences cut out of the Alcoran, with circles and other figures, in which they inscribe the name of Jesus, the figure of the crofs, &c. They hang them about their necks, or place them under their arm-pits, or in their bosom near their hearts, and especially when they go to war, as a preservative against the dangers of it.

The pope is supposed to have the virtue of making amulets, which he exercises in the consecration of Agni Dei.

Amulets are now much fallen from the reputation they were anciently in; yet the great Mr. Boyle alleges them as an influence of the ingred of external effluvia into the habit; in order to shew the great porosity of the human body.—He adds, that he is perfuaded none of these external medicines do answer: for that he himself, having once been subject to bleed at the nose, and reduced to use several remedies to check it, found the moes of a dead man's skull, though only applied so as to touch the skin till the moes was warm thereby, the most efciential of any. The same Mr. Boyle shews how the effluvia, even of cold amulets, may, in tract of time, pervade the pores of a living animal; by supposing an agreement between the pores of the skin, and the figure of the corpuscles. Bellini has demonstrated the possiibilidad of the thing in his last propositions, De Pecibus; and the like is done by Dr. Wainwright, Dr. Keill, &c. However, these are principally used at present by empirics, women, and credulous superstitious persons.

AMULET, in a more particular sense, is restrained to such medicines as do not operate by any physical virtue, or to those wherein there is no proportion between the cause and effect.

In this sense medicines, which operate by effluvia, odours, and the like, do not belong to the class of amulets.

In this sense also those essence-vesils worn by hysterical women on their breasts, called by the Greeks χαφας, &c.
AMU

and by the Latins domus pecoris, were not properly amulets.

AMULET is sometimes also applied, in a more extensive sense, to all medicines, whether internal or external, whose virtue or manner of operation is occult.

AMULET, in Cookery. See OMLET.

AT-ULETICS, in Medicine, is used by some writers for what is more frequently called an amulet.

Amulets amount in the main with what are otherwise called sumptuaries, and have been chiefly used in late times to flrop bleeding; such are the perfuors, tapis humeuris, dried roots, &c. also against warts, fistulae, &c.

Sir Kenelm Digby's sympathetic powder is one of the principal amulets in cafes of hemorrhages, and with many the amanita.'

AMUNCULA, in Ancient Geography, a town of Africa Propria, situated between the two Syrtides.

AMUND, in Ancient Writers, denotes a person free or discharged from tuition or wardship. The word is also written amund, anual, and aman; and is compounded of the privative a, and the Salon mundus, defence, tuition.

AMUR, or Anurun, in Geography, a river of Alasric Russia, or rather of Chinese Tartary, is formed of two rivers, Argoon and Shilka, and first takes its name on their conjunction in the Chinese territory, E. long. 121° 14', and discharges itself into the Pacific ocean, opposite to the island of Sakhalen, E. long. 145° 14'. N. lat. 53° 5'. The Shilka rises in the Yablonny mountains, E. long. 109° 14'. N. lat. 49°, being formed of the tributary streams, called Ingenia, Oonoa, and Netcha, filled by Netchinka, through the Nertchenko district, and joins the Argoon. The Argoon has its source in a lake upon the frontier that parts Ruffia from China, and forms the border all the way to its exit, in the Shilka. By the treaty of 1727 the Amoor belongs entirely to China; otherwise, the ship-building on the sea of Okhotick would be much facilitated to the Russians, as great part of their materials might then be brought by water, which are now conveyed by land at a great expense.

AMULO, in Biography, was born in France, and after having been deacon of the church of Lyons, under Agobard, was on his death raised to the archbishopric of that see in 841. He condemned the veneration that was paid to relics as an occasion of error and superstition; he also wrote a letter against Gotechaleus, and some other pieces upon Grace, Predellation, and Free-will; and "a book against the Jews," addressed to king Charles, the brother of the emperor Lotharius. Amulo, considering the time in which he lived, and his high rank in the church, was a man of distinguisued liberality and moderation; he was much esteemed on account of his talents and eloquence; and shared in an eminent degree the favor of Charles the Bald. He predeceased the council of Lyons in 843. His book against the Jews was published in 1050 by Father Chifflet, under the name of Rabanus Maurus. All his works, except this, were published by Eulze, with notes, at the end of his edition of Agobard, whence they were transferred to the Bibliotheca Patrum. Trithemius says, that Amulo was well skilled in the scriptures and ancient writers, very conversant in secular learning, famous for his knowledge of the Hebrew as well as Latin tongue, and of a quick and lively genius. Cave, H. L. tom. ii. p. 29. Mosheim, vol. ii. p. 322.

AMURACORY, in some Writers of the Middle Age, denotes a kind of Turkish soldiery belonging to the corps or order of janizaries.

They seem to be the same with those otherwise called Serapourit and Portadores.

AMURATH, or Morad, I., in Biography and History, Sultan of the Turks, was the son of Orchan, and the brother of Soyman, and succeeded his father, A. D. 1366. In pursuing the conquests of the Greek empire, he subdued without resistance the whole province of Romania or Thrace, from the Hellepont to mount Idaus, and the verge of the capital, and, made choice of Adrianople for the royal seat of his government and religion in Europe. He afterwards marched against the Sceldonian nations, between the Danube and the Adriatic, viz. the Bulgarians, Servians, Bosnians, and Albanians, and having vanquished their forces and warlike tribes, he converted them by a prudent institution into the firmest and most faithful supporters of the Ottoman greatness. Being reminded by his vizir, that, according to the Mahometan law, he was entitled to a fifth part of the spoil and captives, and that the duty might be easily levied, by blazoning vigilant officers at Gallipoli to watch the passage, he selected for his use the stoutest and most beautiful of the Christian youth, and educated many thousands of the European captives in religion and arms. This new militia was consecrated and named by a celebrated dervish, who, standing in the front of their ranks, stretched the sreeve of his gown over the head of the foremost soldier, and pronounced his blessing in these words: "Let him be called Janizaries, (yenghi cherti, or new soldiers); may their countenance be ever bright! their hand victorious! their sword keen! may their spear always hang over the heads of their enemies! and wheresoe'er they go, may they return with a white face!" Such was the origin of the Janizaries. By the assize of these troops, Amurath extended his conquests in Europe and Asia; and he succoured the emperor, John Palaeologus, against the Bulgarians. When a rebellion was concerted by the eldest sons of these two sovereigns against their fathers, Amurath punished his own son by depriving him of his sight, and inflicted on the same penalty being inflicted on the son of the emperor. After a protracted course of successes, Amurath was opposed by a formidable league of the Walachians, Hungarians, Dalmatians, Triballians, and Avars, under the command of Lazarus, prince of Servia. By the battle of Coffsra, Lazarus was defeated and taken prisoner, and the league and independence of the Sceldonian tribes were finally crushed. But as the victor walked over the field, viewing the slain, and triumphing in his successes, a Servian soldier killed from the crowd of dead bodies, and pierced Amurath, at the moment of his exultation, in the belly with a mortal wound. Others have attributed his death to a Croat, who is said to have labbed him in his tent; and this accident was alleged as an excuse for the unworthy precaution of pinioning, as it were between two attendants, an ambassador's arms, when he was introduced to the royal presence. Amurath died in the 71st year of his age, and 50th of his reign, A. D. 1389. His character has been highly extolled by the Turks, and he has been represented as mild in his temper, modest in his apparel, temperate in his mode of living, and a lover of learning and virtue: he was reproached, however, by the Molossians for his absence from public worship, and he was corrected for his negligence by the fumes of the mufti, who refused to admit his testimony in a civil cause. The sultan, it is said, profited by the reproach, and atoned for his fault by erecting a magnificent mosque at Adrianople, Gen. Dict. Gibbon's Hist. vol. xi. p. 444. &c.

Amurath, or Morad, II., succeeded his father Mahomet I., in 1422, at the age of 18 years. He reign commenced
meased with the capture and death of an impolite, who pretended to be Multapha, the son of Bajazet, and who was supported by the Greek emperor. He then invited Contantine; but his attention was diverted by the rebellion of Multapha, his younger brother, who was imprisoned and flung into the palace. In 1434 he restored the discipline of the Janizaries, and reformed the abuses of the Saphis, and in 1436 he laid waste the Isle of Zante, belonging to the Venetians. In the next year he invaded and subdued the Morea, and obliged the Grecian emperor to pay him tribute; and having taken Thesalonica, or Saloniki, he compelled the Venetians to make peace. In 1434 he suppressed the rebellion of Karamanogl; and when a war broke out between the Ottoman empire and the king of Hungary, in which the famous Hungarian general, John Huniades, gained several victories, Amurath crossed the Danube, and laid siege to Belgrade, but Huniades obliged him to raise it. He also invaded and subdued Servia, which was restored in the peace between Hungary and Poland; and on this occasion it was stipulated, that neither party should cross the Danube in a hostile manner into the dominions of the other. Amurath, having awed Karamanogl, who was renewing his attacks, into submisson, and granted him peace in compliance with the intrigues of his wife, found his dominions in a state of tranquillity; and formed a resolution of abdicating the Turkish throne. Accordingly, in 1443, at the age of 40 years, perceiving the vanity of human greatness, he resigned the empire to his son, Mahomet, and retired to Magnesia, where he joined the society of devouts and hermits, and adopted all their austerities and fanatic rites. If his motives in this extraordinary proceeding had not been debased by an alloy of superstition, we might have extolled his magnanimity. From this dream of enthusiasm, as it may be justly called, he was soon roused by the Hungarian invasion. Ladislaus, the king of Hungary, and his auxiliaries, invited by Karamanogl, the inveterate foe of the Turkish empire, penetrated into the Musulman territories, and Amurath, urged by the earnest intertreaty of his son, and the wishes of the people, determined to take the command of the army. Advancing by halcyon marches from Adrianople, at the head of 60,000 men, he met the Christians at Warna; and on the first onset the Turkish wings were broken; and Amurath perceiving the flight of his squadrons, despairs of his fortune, and that of the empire. During the heat of the engagement, a copy of the treaty of peace between himself and the Hungarian king, was displayed in the front of the ranks, and it is said, that the sultan in his distress, lifting his eyes and hands to heaven, implored the protection of the God of truth, and called on the prophet Jesus himself to avenge the impious mockery of his name and religion. Whilst the battle was in suspense, the young king of Hungary rushed forward in the confidence of victory, till his career was stopped by the impenetrable phalanx of the Janizaries. If we may credit the Ottoman annals, his horse was pierced by the javelin of Amurath; he fell among the spears of the infantry; and a Turkish soldier proclaimed, with a loud voice, ‘Hungarians, behold the head of your king!’ The death of Ladislaus was the signal of a total defeat. Ten thousand Christians were slain in the disastrous battle of Warna; and of the number was cardinal Julian Cefarini, distinguished by his talents and learning, and by a volatil genius, equally adapted to the school, the camp, and the court. The circumstances of his death are variously related; but it is believed, that a weighty incumbrance of gold impeded his flight, and tempted the cruel avarice of some Christian fugitives. However, it is allowed, that he fell a just victim to that pernicious caitiffy by which he quieted the mind of Ladislaus in the violation of his oath, and absolved him in the pope’s name from the guilt of perjury. The loss of the Turks, more considerable in numbers than that of the Christians, bore a smaller proportion to their total strength, and yet Amurath himself was not ashamed to confess, that his ruin must be the conquest of a second and final victory. This battle happened on the 1oth of November, A. D. 1444; and was followed by the retirement of Amurath a second time to the chancellery and devotion of private life. In 1445 he was again called forth to public service by an insurrection of the Janizaries, who filled Adrianople with rapine and slaughter. Having quelled this tumult, he turned his arms against the famous Scanderbeg, prince of Epirus, who had revolted; and followed him to Albania, at the head of 60,000 horse and 40,000 Janizaries. The conquests of the sultan were confined to the petty fortresses of Scetigrade; and he retired with shame and loss from the walls of Croya, the castle and residence of the Caffriots. Amurath, by the alternative of death or the Koran, converted all the Epirots to his own faith. The Hungarians renewed their invasion of the territories near the Danube; and Amurath fell in with them near Costova, the place where Amurath I. had been victorious. The refult of many partial but bloody actions was the route of the Christian forces, and the capture and imprisonment of Huniades, the supreme captain and governor of Hungary, in his retreat. Amurath returned to Adrianople; and having given up all thoughts of resignation, he married his son Mahomet to the daughter of the prince of Elbistan, and appointed him to the government of Asia Minor. By his disappointment at Croya, and the fatigues of his retreat, his last days were not only embittered, but probably shortened; for on his arrival at Adrianople he was seized with a disorder in his head, which terminated his life in the 47th year of his age, and the 50th of his reign. According to Cantemir, the historian of the Ottoman empire, he died 49, and reigned 50 years, five months, and eight days. According to this historian, “he was a just and valiant prince, of a great soul, patient of labours, learned, merciful, religious and charitable; a lover and encourager of the studious, and of all who excelled in any art or science; a good emperor, and a great general. No man obtained more or greater victories than Amurath; Belgrade alone withstood his attacks. Under his reign, the sultan was ever victorious; the citizen rich and secure. If he subdued any country, his first care was to build mosques and caravanserais, hospitals, and colleges. Every year he gave a thousand pieces of gold to the sons of the prophet, and sent 2500 to the religious persons of Mecca, Medina, and Jerusalem.” It should be considered, however, that cruelty and violence have been sanctioned by zeal in propagating the Mahometan faith; and that, in the hands of the Turks, theeyer was the only instrument of conversion; after all the abatements that ought to be made in the preceding panegyric, it is generally allowed that the moderation and justice of Amurath have been attested by his conduct. In the vigour of his age and military power, he seldom engaged in war till he was justified by a previous and adequate provocation; when victorious, he was disarmed by submissi on; and in the observance of treaties, his word was sacred and inviolate. Mod. Univ. Hist. Gibbon’s Hist. vol. xii. p. 156, &c. AMURCA, in Pharmacy, a medicine made of the refuse or remnant of expressed olives. A murca, being boiled in a copper vessel to the consistence of
of honey, becomes a drug of some use in medicine, being reputed an antiseptic and diuretic, and as such sometimes prescribed in ulcers, as well as against diseases of the teeth, eyes, \\

Hippocrates applies the term amurea to a cruste, immature, putrid state of the liver.

Some authors have also given the name amurea to the juice of fluid found in the Reseae facultaria.

AMUSKEAG FALLS, in Geography, are on Merrimack river, in New Hampshire, America, 10 miles below Concord, and seven below Hooksett falls. There are three of them, one below the other, so that the water falls about 60 feet in the course of half a mile. In the middle of the upper part of the second fall is a rocky island, in which are found several excavations or pits, by the circular motion of small stones, impelled by the force of the defending water, which are capable of holding several tons of water. A little below the falls is a bridge 566 feet in length, and 20 in breadth, consisting of 2000 tons of timber. N. lat. 42° 59'.

AMUTRIUM, in Ancient Geography, a town of Dacia, according to Ptolemy.

AMUY, in Geography, a town of India, beyond the Ganges, near the western bank of the lake Chamai, on the confines of the kingdom of Kanduana.

AMWELL, a village in England in the county of Herts, 21 miles north of London, and one south-west of Ware, in which is the spring of the New River, that supplies a considerable part of London with water. This river or canal was projected by Sir Hugh Middleton, in 1666.


AMY, in Law, the person next of kin to an orphan, or infant, who is to be intrusted for him; properly called prochein amy.

The word in French literally signifies friend.

AMY, alien, is a foreigner here, subject to some prince, in friendship with us.

AMYBUS, in Ancient Geography, an island of the Red Sea, supposed to be the same with Amicus, or Aniety Infula.

AMYCI Campus, a name given by Polybius to a plain in the midst of which runs the river Orontes, between Libanus and Anti-Libanus.

AMYCI Portus, was situated on the Thracian Bosphorus, north of Nicopolis, and south of Fanum Jovis. It derived its name from Amycus, an ancient king of the Brichri, who was killed in a combat with Polus, and on whose tomb was planted a laurel, Gr. Daphne, whence the port was called Daphnous portus.

AMYCLE, a city of Peloponnesus, in Laconia, situate south-west of Sparta, and near it. Although small, it was famous for its fruit-trees, so that it was called by Statius (Theb. ix. v. 769) 'virdes Amycle.' According to Polybius, the temple of Apollo in this place was the most celebrated in Laconia, whence it was denominated by Statius, "Apollo Nicola Amycle," and it was pretended that Leda, the mother of Castor and Pollux, resided in this place, whence Silvius Italicus, (lib. xi. v. 434.), describes it thus:

"Leda is venera victor Xanthippus Amycles.
Venus had also a statue in this place, executed by Gitiades. When this part of Laconia was attacked by the Romans, Q. Flaminius encamped near Amycle, and ravaged its territory; and the city was afterwards destroyed. In the time of Tarquiniius, there were some remains of its ancient magnificence.

AMYCLE was also a town of Italy, in Upper Calabria, said to have been peopled by a colony from Amycle, in Laconia, but its situation has not been ascertained; though, it is supposed to have been between Cagna to the south, and Terracina to the north-east. Pliny and Solinus say, that the inhabitants were so afflicted with serpents, as to be under a necessity of abandoning their dwellings. The Amicli were distinguished among the ancient poets by the epithet, "tire," or silent, because it was built by the Epaedemomii, who, having adopted the system of Pythagoras, recommended silence; or, according to others, because a law was enacted in this place, for the purpose of preventing false rumours, by which the people were alarmed, which prohibited any person from reporting the approach of an enemy; but this law was in the end the cause of the ruin of the city; for the Dorians arrived unexpectedly at the walls, and took the city. To this circumstance Silius refers, lib. viii. v. 536:

"—Quamque everti silentia, Amycle, &c."

AMYCLEI, a people of Africa, who, according to Dionysius Peirestes, inhabited Cyrenaica.

AMYCLEIAUM, a town and port of the island of Crete, according to Eutathius.

AMYDON, a town of Macedonia, upon the Axios, in Pzaonia, mentioned by Steph. Byz.

AMYGDALA, in Natural History, a species of Echinus, in the class mollusca of worms, so called, because in shape it resembles an almond.

AMYGDALAE, in Surgery, denotes superficial flesh growing at the root of the tongue.

AMYGDALAE, in Anatomy. See Almonds.

AMYGDALATE, an artificial milk, or emulsion, made of blanched almonds, &c.

AMYGDALAE, See Almond.

AMYGDALIS SIMILIS, in Botany. See Theobroma.

AMYGDALOID, in Natural History. See Toad-Stone.

AMYGDALUS, in Botany, a genus of the icefandria monogynia (polyandra monogynia, Gmelin,) chaff and order, of the natural order of pomaceae and rosaceae of Jullieu; its characters are, that the calyx is a perianthium, one-leaved, tubulous, inferior, quinquefald, deciduous, divisions spreading and oblique; the corolla of five petals, oblong-ovate, obtuse, concave, inserted into the calyx; the filaments have about 30, filiform erect, shorter by half than the corolla, inserted into the calyx, anthers simple; the pistilium has a roundish, villose, fimbriate, the length of the flaments and headed stigma; the pericarpium is roundish, villose, large drupe, with a longitudinal furrow; the seed is a nut, ovate, compressed, acute, with prominent futures on each side, reticulated with furrows, and dotted with small holes. Obs. the nut of the almond is covered with a dry skin; that of the peach with a small pulp. There are seven species. 1. Amygdalus, with all the serratures of the leaves acute, and the flowers sessile and solitary. There are two varieties, viz. the peach-tree, with downy fruit, and the
AMYGDALUS.

NECTARINE, with smooth fruit. For a particular account of both these, their varieties, and different qualities, and the method of their culture and propagation, see AMYGDALUS, in Gardening, infra. 2. A. communis, the almond tree, with the lower ferratures of the leaves glandulous, and the flowers sessile and in cypripets. Some reckon three varieties, viz.: a. A. fruticosa, the common or wild almond; b. f. vallisii, sweet or Jordan almond; and c. A. amara, bitter almond. Miller makes three species of the almond, viz.: 1. A. communis, or common A., cultivated more for the beauty of its flowers, than for its fruit; of which there are two varieties, one with sweet, the other with bitter kernels, which often arise from the fruit of the same tree. 2. A. dulcis or Jordan A., the nuts of which are frequently brought to England; these have a tender shell, and a large sweet kernel. The leaves are broader, shorter, and grow much closer than those of the common fort, and their edges are crenate. The flowers are very small and of a pale colour, inclining to white. These trees have been often raised from the almonds which came from abroad, and the plants have been found to maintain their difference from the common almond. 3. A. sativa, with short pointed leaves, flowers much smaller than those of the common almond, and white; the shoots of the tree smaller and joints closer than those of the common fort; and the tree is less hard, and should therefore have the advantage of a warm situation, otherwise it will not thrive. This fort flowers in the Spring, and rarely produces fruit in England. From an old tree, placed against a wall, with a south aspect, the fruits have been years been ripe, and well flavoured, but their kernels have been small.

Duhamel gives seven species and varieties of the almonds, viz.: 1. Common A. with a small fruit. 2. Sweet A. with a tender shell. 3. Bitter A. with a tender shell; a variety of the preceding. 4. A. with a small fruit, and a tender kernel: Amande-furtex,—and, with a still smaller fruit, amande-pitache. 5. Sweet A. with a large fruit. 6. Bitter A. with a large fruit, a variety of the preceding. 7. Bitter A. probably a variety of the first. He also mentions another, which he calls amandier-oilier, and supposed to have been produced from the impregnation of the almond, by the farina of the peach.

The common almond has leaves which resemble those of the peach, but the lower ferratures are glandular; they proceed from buds both above and below the flowers, and not as in the peach, from the ends of the shoots. Above are not below the flowers. The form of the flowers is not very different, but they usually come out in pairs, and vary more in their colour from the fine blush of the apple-blossom to a flowery white. The chief obvious distinction is in the fruit, which is flatter, with a coriaceous covering, instead of the rich pulp of the peach and nectarine, opening spontaneously when the kernel is ripe. The shell is not so hard as in the first species, and is sometimes tender and very brittle; it is flatter, smoother, and the furrows or holes are more superficial. This tree is a great object in some parts of Italy, and in the south of France, and there are large plantations of it in Provence and Dauphiné. It is common in China, and most of the Eastern countries; and also in Barbary, where it is a native. In the time of Cato it seems not to have been cultivated in Italy; for he calls the fruit nucis graces, or Greek nuts. With us it is valuable as an ornamental tree in clumps, shrubberies, &c. within view of the mansion; for it displays its delicate red-purple bloom in the month of March, when few other trees have either leaves or flowers. An almond-tree, covered with its beautiful blossoms, is one of the most elegant objects in nature. In a forward Spring, they often appear in February; but in this case, the fruit generally delirious them, and they bear little or no fruit; but when they flower in March, they seldom fail to bear plenty of fruit, very sweet, and fit for the table when green, but they will not keep long.

3. A. rumilla, persica africana, &c. of Herm. rugosa, A. persica nana, &c. of Pink, phyto persica amygdalus of Miller, double-flowered dwarf-almond, with leaves veined-wrinkled, or leaves lanceolate and double serrated, wild. The blossoms are smooth, two or three feet high, and dark-purple; the flowers are generally two in a bud and sessile; the calyx reddish; the petals charnate (acuminate, Reichard), red, longer than the tube of the calyx, filaments pale; germ and style subpilose at bottom; stig- stipes linear and very deeply serrate; varies with double flowers; and its native country is Africa. These shrubs make an agreeable variety amongst low flowering trees, in small wildernees quarters; the single fort flowering in the beginning of April, and the double commonly three weeks later. It was cultivated by Miller in 1731. 4. A. amara, A. indica nana of Pluck, and Miller, prunus inermis. &c. of Gmelin, Sibir, armeniaca pericirc folius. &c. of Amn. Ruth. common dwarf almond, with leaves attenuated at the base. The leaves are lanceolate, subulate, scattered, somewhat rigid, smooth, the ferratures very sharp and somewhat spinod, the stigmas linear, long and deciduous; the flowers very abundant on the twigs, appearing with the first leaves from all the buds, the calyx subobtuse and reddish; segments acute, green, and very finely serrate; petals of a fine rose-colour: flammus about 20, the inner ones gradually shorter; pilill very villose; fruit usually solitary, sessile, somewhat compressed, very hirsute, with a harsh yellowish wool, the fize of a hazel nut, which is of a sharp ovate form, yellowish-grey colour, and grooved at the futures; the kernel resembles that of the peach and colour in table; the wood hard, of a yellowish chestnut colour, and veined, but the trunk seldom an inch in thickness. It varies much in size; on the banks of the Volga, it is annually set on fire, and never rises to any height, but is low and shrubby, creeping very much at the root, and obstructing the plough. In Cheriton it scarcely attains a span in height, but in the Ukraine it grows a fathom high, as it does in gardens, where the leaves are broader, and sometimes five inches long. It blooms in April, when all the young shoots are covered with flowers of a peach-blossom colour, and makes a fine appearance among shrubs of the same growth. It is a native of the northern parts of Asia, abounds in Caluce Tartary, and is very common on the banks of the Volga, cultivated in New garden by Mr. Sutherland, in 1683. See AMYGDALUS INFRAS. 5. A. inca, hoary dwarf A. with leaves lanceolate, serrate, wrinkled, subfusillis, white tomentose beneath. It may be doubted whether this be not a variety of the preceding species. 6. A. orientalis, A. argentea of La Marek, silvery-leaved A. with leaves lanceolate, quite entire, silver, perennial, and petiole shorter. The flowers are small, and are not succeeded by fruit in England. It was found growing near Aleppo, whence the fruit was sent to the duke d'Ayen, in France, who raised several plants in his garden at St. Germain's, and sent some to Mr. Miller, who cultivated them at Chelsea, in 1750. It is a native of the Levant. 7. A. robbinsoniana, with leaves ovate, quite entire, and racemes, small, and subterminal. This is a large tree, with spreading branches, acuminate, waved, shining, and alternate leaves, white corolla, drupe about half an inch in diameter, and kernel like the common almond, in form.
AMYGDALUS.

From and small, a native of the wild woods of Cochinchina. For the culture and propagation of almonds, see AMYGDALUS in Gardening, &c. See Bearbium.

AMYGDALUS AETHIOPIUS. See Terminalia.

AMYGDALUS INDICA. See Terminalia.

AMYGDALUS, in Gardening, is applied to the almond, peach, and nectarine trees; the oblong, oval, or almond-shaped, as different species of which, have been given above. In order to render their culture and modes of propagation as clear and intelligible as possible, it may be proper to consider each of them separately.

1st. Amygdalus, almond-tree. This fort of tree is cultivated both for the advantage of the fruit, and as being admirably ornamented in shrubberies, plantations, and other descriptions of pleasure ground, from its coming into bloom early in the Spring. It is, however, less important in the former than the latter point of view, as the fruit is often liable to miscarry in this climate. All the species and varieties of this tree are deciduous, and of a hardy nature, thriving well in most common garden soils. Those of the tree kind frequently rise to fifteen or twenty feet in height, dividing in many spreading branches, which ultimately form beautiful heads, that are generally well adorned in the beginning of March with innumerable flowers, which continue in full bloom for a fortnight or three weeks, and are followed by the leaves, which are long and narrow, and the fruit takes its growth. This is downy, rather large, and of an oval form, consisting of a thick, tough, leathery substance that embraces an oblong nut or stone, in which the kernel or almond is enclosed, which is the only part of the fruit that is capable of being made use of.

The dwarf shrubby sorts of this tree do not, however, in general, exceed three or four feet in height, having slender limbs, which lend forth a great number of small branches near to the ground; and in the single-flowered kind various suckers are frequently sent up from the root. And in both the double and single-flowered almond tree, all the young branches are thickly beset with flowers in the Spring, which, from their having a fine pale red colour, and continuing some time in blow, are highly ornamental. The single-flower have their flowers coming out about the end of March, and the double kind in the beginning of April, each remaining about a fortnight in blow.

The sorts chiefly cultivated for use in this country, are, according to Mr. Forfyth, the tender-scaled almond, the sweet almond, the common or bitter almond, the sweet Jordan almond, and the hard-scaled almond. Those propagated only for ornament are the dwarf and the double-flowered almonds.

Methods of Propagation, &c.—These are either by budding them upon plum, almond, or peach flocks, or by fowing the flocns of the fruit. It is observed in the "Universal Gardener," that in the first way they much sooner form full and regular heads, and attain the state of flowering and producing fruit; and that if it be intended to continue the sweet-kernelled, or any other particular sort, it can only be effected with certainty by inoculation, as when raised from seed they are apt to vary, all the varieties often proceeding from the fruit of the same tree. This operation is generally performed about July or August, and may be done either for dwarfs, half, or full standards. Mr. Forfyth remarks, that the Spring after being budded they may be trained for standards, or let grow for half-standard's; but that the most common method is to bud them at such a height as the Icem is designed to be; and the second year afterwards to plant them out for good. If they are to be transplanted into a dry soil, it is recommended to be done in October, when the leaves begin to decay; but if into wet ground, in the month of February. Such as are budded on plum flocks are found to grow the best in wet foids, and those on almond and peach flocks in dry ones.

In raising trees of this kind from the flocns, it is best to plant them in the early Autumn or Spring months, as October and November, or February and March, being careful to chance the 2d half Summer's growth, drilling them in, in the bed of good light ground, two or three inches in depth. The plants appear in the Spring, and in the Autumn or Spring following, may be transplanted into the nursery, and put in rows for the purpose of being trained for standards, half standards, or dwarfs, according to the intention of the planter.

When it is intended to bud any of them with peaches or almonds, they will some of them be in a proper state for the operation; for dwarfs the 1st, and all of them the second Summer after transplanting; but for standards, in order to be trained with proper items, they should constantly have three years growth.

The dwarf sorts, besides being propagated by budding upon plum or almond flocks, may be easily raised by suckers from the roots, and by layers. The common method in pruning trees of this fort is, in the Spring, to shorten the 2d shoot from the bud to four or five eyes, in order that the trees may put forth lateral shoots in proper quantity, so as to form regular full heads. But it is advised by Mr. Forfyth, that when the young trees are brought from the nursery, they should never be cut till the young shoots begin to break. And, that, as after wet Summers, when the wood is not well ripened, hard Winters are apt to kill the shoots, they should in such cases be cut down to the ground, care being taken, to prune out all such crook shoots as rub against others, leaving the tree open in the middle, cutting the shoots about the fame length as for apricots, and in proportion to their strength. The cankery parts and decayed wood must always be wholly cut out and removed.

Whether made use of as standards or half-standards, it is recommended that they be planted in sheltered situations, which have a southerly aspect. In some cases it may be necessary to protect them by some fort of light covering, against the injury that may be expected from the frosts in February and March. Trees of this sort are also sometimes planted against walls and on efpaliers.

The fruit of the almond-tree, after being properly dried, may be preferred in either bran or fand.

2d. Amygdalus-Perfica, or peach-tree. Its native country is not known. It came to the Romans from Persia, as its Latin name, MALLUS PERFICA, indicates; and it has been cultivated from time immemorial in most parts of Asia; it has been adopted by almost every nation of Europe, and now flourishes abundantly in America, where it has been introduced by the Europeans. Of this tree we have only one distinct species, but there are a great many varieties, and by producing them from the seed or kernel, they may be almost indefinitely increased. But though they are capable of being greatly augmented in this manner, it is probable that but very few possess the necessary qualities, as nurserymen seldom cultivate more than twenty or thirty sorts. As in the cultivation of this sort of tree much experience is constantly required in walls or other suitable buildings, none but such as produce fine fruit should be attended to.

This sort of trees will grow to a considerable height as standards, but in order to produce and ripen fruit, requires the shelter of warm walls. They flower early in the spring.
AMYGDALUS.

in common, the flowers appearing before the leaves, mostly on the twigs of the preceding year, and either singly or in pairs along their sides. They are formed of five small petals, with many stamens in the middle, and a small round germen that becomes the peach.

The fruit is distinguished into two forts, the peach and plum, from the circumstances of the flesh or pulp quitting or adhering to the stone, as in the former it easily separates, while in the latter it adheres firmly.

There are various sorts of peaches that may be cultivated, but for small gardens Mr. Forbth recommends the following as the most suitable: the early avon, flaminia, the anjpeach, royal George, royal Kisington, noblest, early Newtoning, Halland, early purple, blanchard, sweet, the Catherine, the late Newtoning.

Against north and east walls he thinks the early avon, early Anne, early Mignon, royal George, red Magdalen, royal Kisington, noblest, graft mignon, and Milet's mignon are by much the best. In this method a regular succession of fine peaches, if it may, is conceived, be procured until the late sorts against the south and west walls come in. But late sorts should never be planted on a north or east wall.

Methods of Culture and Propagation.—It is observed by Mr. Forth, that peaches require a lighter soil than either pears or plums, and that a light, mellow loam is the most proper for them. Where the natural soil is a strong brick mould, inclining to clay, it will be necessary to take some of it away in first preparing the borders for the trees, in order to be mixed with some light mould, sand, or old lime rubbish. And in making them up, where the trees are to be planted, the earth should be taken out to the depth of three feet, and the breadth of four, and the soil worked well together with rotten leaves or street dung, and the above mixture, throwing them up as soon as convenient into rough ridges, to be exposed to the action of the frosts, and the influence of the atmosphere.

The borders, when it is intended to plant these trees against walls, should never be narrower than three or four feet, and when made six or seven feet, they are more proper. The most advantageous aspects for trees of this description, are those which have the most command of the south fun, but on an eastern or western aspect, they sometimes answer tolerably well.

Where the soil is wet, drains laid deep are recommended by Mr. Forth to be made across the borders, to draw the water from the roots of the trees. These may be filled with old bricks or floes at bottom, and above with gravel, having the depth of two feet of good mould upon the latter. And when water is retained after rains from the illines of the ground, the borders should be formed with suitable floes for the same purpose.

If the soil be a four, loth clay, he advises brick-bats to be thrown into the bottoms of the borders, and to be covered with lime rubbish, or the core from the screenings of lime, which should be then wittered, and, when nearly dry, well rammed to form a solid surface, and prevent the roots of the trees from penetrating the wet earth below, as well as to affix in taking off the water.

When water is permitted to flagmate near the roots of tender trees, in strong land, it is remarked, that it is certain to bring on the mildew, and thereby totally spoil them. They may, however, in some instances, be rescued by moving them to another aspect. All the French peaches, it is observed, are extremely liable to this disease on lands of the strong adhesive kind.

The propagation of peach-trees is accomplished either by setting the seed, or by budding upon plum-stocks. The fine varieties of this fruit have been mostly obtained in the full method, though it is tedious, and often attended with but little success, from the great tendency to deviate from the nature of the variety from which the seed was taken.

The manner of proceeding in this way is to sow or set the seeds, in beds of good mould, in small drills two or three inches deep, about October or November; or where this cannot be done, to preserve them in sand till February. They will be up in the Spring, and after one or two summers' growth, according to circumstances, they will be fit to be transplanted into the nursery, which should be done in rows, either in the Autumn or Spring months. After having remained about twelve months in this situation, some of them may be taken out, and planted against a palings or other proper fence, in order to be trained.

But the most certain method of propagation for preserving the variety, according to the authors of the "Universal Gardener," is that of budding, as by this means peach-trees are produced that afford fruit in size, colour, and taste, exactly similar to that of the tree from which the bud was taken. Before, in this way, the trees become much lower in a bearing state. Though peaches may be budded on different sorts of stocks as those of their own kind, the almond, the apricot, and the plum, yet the peach is always to be preferred for the purpose, as being more hardy and suitable for continuing the trees in a prosperous and full bearing condition. It is also more adapted to grow well in different kinds of soil. The muscle plum-stock is by much the best, where it can be procured.

Stocks for this use may be raised from the different varieties of plums, as well as from peaches, almonds, and apricots, by fowing the seed or floes in the manner that has been already described. The true muscle plum cannot, however, be produced with certainty in this way, as it is liable to great variety when raised by seed. The only mode of procuring it with certainty is by layers in the Autumn, or suckers from peach or other trees that are known to have been worked upon that sort of plum-stock. These are to be collected in October or November, or in the early Spring months, such being chosen as are about the size of the little finger; the knots of old wood adhering to the roots, and the side branches being then trimmed off, they are to be planted in rows two feet and a half distant, and the following Summer some of them will be ready to bud for dwarfs. For forming dwarfs, the most proper fixed stocks for budding upon are those from half an inch to an inch in thickness; but for half or full standards the stocks should be allowed to stand till the limbs are an inch thick at the bottom, and four or five feet in height. See Stock.

The best season for budding them is August, though some gardeners perform the operation in June or July; but when budded too early the buds are liable to freeze weakly the same season, and to be so greatly injured by the Winter, as to make but little progress. See Budding and Isolation.

As it is most necessary that trees of this kind are trained against some sort of fence, they should be principally budded to as for dwarfs, that their branches may come out low. Where the fences are high, they may, however, be budded for half or full standards, and trained accordingly. In performing this business, care should constantly be taken that only one bud be inserted into each fock, the head of which should remain perfect until the Spring; when about March, the whole of the buds should be cut out, in a sloping direction, just above the places where the buds were inserted. Shortly after this the buds most slowly out, producing each a strong...
cerst shoot, which by Autumn has generally attained a consisten
table height, and the tree have obtained their full date of
formation. They should therefore, in the early Aut
omn or Spring months, as October and November, or
February and March, be transplanted either against suit-
able walls, where they may remain, or against some fence
merely with the view of being properly trained before they are
finally planted out into their intended situations; but in
either case, in the Spring, they must have the first shoot
from budding headed down to a few buds or eyes, in order that
a proper supply of lateral shoots may be produced below.
In two or three years they are generally in a state to bear
fruit. See Planting down Trees.

Planting the Trees.—In cultivating this sort of tree, Mr.
For-
syth well observes, that such plants should be preferred as
have the strongest and cleanest forms; and if such as have
been headed down, and are of two or three years growth,
will bear and fill the walls much sooner than those
that have not been managed in this way. Where they have
only one item they are better than with two, as, in the latter
case, one of them must be cut off; for, if planted with both,
the middle of the tree would be left naked, and a large por-
tion of the wall remain uncovered. He is aware that it is
frequently the practice to chuse the trees with the smalllest
items; but, he thinks, they always afford weaker shoots than
the others.

The seasons of planting are either the Autumn or the
Spring. In dry, warm soils, October or November, as soon
as the leaves begin to fall, may be the best periods for this
but they may be used in most soils the Spring months,
as February and March, are to be preferred.

In whatever season the work is done, if the borders be
new, the ground should be well trenched before the trees are
planted; and where they are to supply the places of
such as have been removed, or where the trees have died,
the whole of the old roots should be carefully removed, and
fresh mould put into the place where the old tree was
removed from; the new earth being raised sufficiently above
the old, as where this is not the case, the trees are fre-
quently injured by being planted too deep. Where they are
not kept at first above the level of the old ground, Mr.
Forsyth says, they seldom thrive well. After the trees have been
planted, the roots should be well watered in order to settle
the mould round them, letting it remain in that state for
several days till the whole of the water has been taken up.
The earth is then to be well trodden round them, and the
holes filled up to the top. The fresh planted trees should
remain without being pruned until the Spring when planted
in the Autumn. The authors of the "Universal Gardener," however, advise, that trees of this sort, as well as most
others that are designed for walls, be planted out into their
permanent situations, when they are only of one year's growth
from the bud, and with their heads entire, as in this way
they may be more perfectly pruned and trained the two first
years, which are the chiet points in forming good wall-trees.

Where walls are to be immediately covered, trained trees
from the nursery mull, however, be procured, and of such
sizes as may be the most suitable to the views of the planter.
The proper distance of planting peach trees is about fifteen
feet from each other. Where the walls are high, half
or full standards may sometimes be planted between the dwarfs
to fill up the upper parts until the dwarfs grow up so as
to cover them. The general rule is, where the walls are
not more than six or eight feet high, to plant none but
dwarf trees at the distance mentioned above; but when they
are nine feet in height, half standards of three or four feet
item may be put betwixt; and when the walls are ten or
twelve, full standards of five or six feet item may be had re-
concile to, in order to cover the top parts; the lower branches
of the standard trees being annually removed, as the branches
of the dwarf trees advance, and the trees themselves at last
wholly taken away, to admit the dwarfs to spread over the
whole space.

In removing the trees from the nursery great care should
always be taken to preserve their roots as much as possible,
and that such parts as are bruised be cut away. The long
small roots may also be a little shortened. The trees are
then to be planted three or four inches from the wall, with
the buds outwards, and the heads inclining to the fence,
to which they should be immediately tied, in order to pre-
vent the winds from injuring them. When the ensuing
Spring proves dry, they should be moderately watered once
or twice a week, according to circumstances. See Planting
of Fruit-Trees.

When planted with their heads entire, they should be
headed down about March, when they just begin to bud.
This is done by shortening the first main shoot within a few
eyes of the bud, in a flopping direction next the wall, as before
directed. This must be done to all the trees that are to be
planted against fences, whether dwarfs, half, or full standards;
as by flopping their upward direction, it induces them to
send out lateral shoots near the parts where they are budded
from, which, by proper training, are formed into good trees.
Where this operation is then omitted they run up, leaving
the item naked to some height. The next thing is to at-
tend to the shoots that are made from the few eyes that
were left, rubbing such off close, as come out for-right,
either from the front or back of the branches, only retaining
those that are bent off laterally, which, about June, when
of sufficient length to be laid in, ought to be nailed well to the
fence, keeping them to it, without being shortened during
the Summer.

About November, when the leaves have fallen, or in the
March following, they should have their first Winter
pruning. This is to be performed according to the number of
shoots that have been produced from the heading down. If
there should be two shoots, one on each side, both of them
may be retained, being shortened to eight, ten, or more
inches, in proportion to their strength, to produce a further
supply of wood, nailing them horizontally to the fence.
When there are three shoots, the middle one, if not regularly
placed, or of too strong growth, should be cut out close to its
origin, the others being shortened and nailed as above; but
when of a moderate growth, and regularly placed, it should
be shortened and nailed in an upright direction. When there
are four shoots, they must be shortened as above, and trained
regularly two on each side; the principle to be chiefly
attuned to at this period of their growth, being that of keep-
ing the shoots of as equal a strength as possible, and of equal
number and regularity on each side; which is best accom-
plished by leaving only two or four good branches, to be
trained with exactness both to the right and left, as these
will supply others to cover the fence in an upright direction.
See Wall-Trees.

In the second year's pruning, during the Summer, all the
shoots that proceed from the upper or under sides of the
horizontal branches of the former year, are to be retained en-
tire and trained, the whole of the for-right shoots arising from
both the front and backs being carefully rubbed off as
nucleas, reserving all such as are regular to be trained in at
full length, as in Summer the shoots should, but in few in-
stances, be shortened.

7 The
The second Winter pruning may be performed about the same periods as the first, in which the branches are to be shortened as directed above, and kept in as much regularity and uniformity as possible, both in number and size, by removing such shoots as are weak. By constantly keeping the lowest branches the most extended, where there are five, six, or eight branches on a side, and these trained at the distance of four, five, or six inches from each other, every handsome trees will be formed, from which some fruit may be expected in the former following.

The trees being by these means brought to the proper form for bearing, they are to be pruned and kept in order by proper Summer and Winter pruning. It may be observed, that both the peach and nectarine trees constantly produce their fruit on the former year's shoots, or the shoots that are formed each Summer bear fruit the next; and that the same shoots seldom bear more than once, except sometimes, on very short casual lateral spurs; nor farther do the same shoots, after the first year, furnish a regular supply of successional bearing wood; it is most generally afforded by the year old shoots. Hence the great object in pruning is to procure an annual succession of young wood, in every part of the tree. This is principally effected by the shortening of each year's branches in the Winter prunings, as by this means they are made to afford both a supply of bearing wood and a crop of fruit.

The manner of pruning and training, so as to render these trees regular and uniform in their shape and appearance at first, has been already explained.

But the general Summer prunings chiefly consist in reforming the irregularity of the numerous shoots then produced, and training, to the wall at full length, in every part, an abundant supply of all the regularly placed ones as successional wood for the next year's bearing; and the general Winter prunings are intended to reform generally the branches and shoots of all ages, sizes, and situations, so as to render the trees healthy, beautiful, and productive. The times of performing these different prunings have been mentioned above. See Pruning of Fruit-Trees.

After the trees have been pruned they should be immediately nailed to the fences, and the bent methods to nail them as the pruning advances, that is, as soon as a tree is pruned to secure the branches by nails, before another is begun. In performing the operation care is to be taken that the branches be laid with order and regularity in a horizontal direction, having their extremities but very little higher than their bottoms, where there is sufficient room between the trees. And in other cases the degrees of obliquity should be as little as the nature of the situations will admit. Where more wood has been left than can be laid in, it must either be cut out altogether or down to an eye, for the purpose of a shoot the next year. See Nailing of Fruit-Trees.

Peach trees are very liable to be affected with the bloat, a disease in which the leaves are shrivelled, or curled up, and considerably thickened. This arises from insects and other causes, and is to be remedied by removing the leaves that are mottled defaced, and washing the trees in hot weather with water, by means of a garden engine, afterwards letting them be well irrigated with tobacco smoke, or sprinkled over with the powder of it. See Fumigation, and Diseases of Fruit-Trees.

As these trees come into blossom early, it frequently becomes necessary to protect them from the effects of the frost, in order to secure the fruit. For this purpose various means have been attempted, but those that seem the most effectual are either thin light mats nailed over them, or a strong open canvas. These should be nailed up in the evenings, and removed during the sunny part of the day. Or in severe weather they may be kept on the whole day.

From the fruit of these trees setting too thick, or in clusters, it often becomes necessary to thin them, which should always be done according to the vigour and strength of the tree, and the size of the fruit. Where the trees are strong, and the fruit small, they may be left thicker than where they are weak and the fruit large. In each case the largest, fairest, and those that are best placed should be left; and where the leaves cover the fruit too much, they should also be thinned away, by being pinched off. Trees of this kind, from the period of their being headed down, to their fifth or seventh year, may be considered in the stage of training, though in their second or third they will generally begin to bear fruit. When properly managed they are also much more durable than is commonly supposed, as they will continue thirty or forty years. It is likewise of much utility in the culture of peach trees, to dig a little dung occasionally into the borders in which they are situated, and to permit none but the smaller kind of garden plants to be grown about them.

Peach and nectarine trees are often cultivated in basins, frames, and hot walls, in order to obtain their fruit early. For these purposes the early sorts should always be procured. See Peach House, Forcing Frames, and Hot Walls.

The double blossomed and dwarf peach trees are mostly planted out in shrubberies and pleasure grounds, as beautiful or ornamental trees; the latter sometimes in pots, as being curious.

3. Amygdalus Nucipersica, or the Nectarine Tree. This is now generally considered as a variety of the peach, but the two trees cannot by any circumstances in their growth, wood, leaves, or flowers, be distinguished from each other with any degree of certainty. The fruits are, however, readily discriminated in all their different stages of growth, that of the nectarine having a smooth, firm cuticle, or rind, while in the peach it is covered with a soft downy substance. Besides, the pulp or flesh of the former is much more firm than that of the latter.

There are many varieties of the nectarine that may be cultivated; but those that chiefly deserve attention are the Fairchild's, the violet, the Ebrange, the Newtonian, the Roman, the Temple, and the Virmajo. The white nectarine may also be cultivated both for the goodness of its fruit, and as being a curious variety.

The culture and management of this tree is, in every circumstance, the same as that of the peach. It also requires the same sort of soil and situation. See Amygdalus Persica.

AMYLACEOUS, formed from "Amylum, starch," a term applied to the fine flower of farinaceous feeds, in which consists their nutritious part.

AMYLON, in Ancient Writers, a kind of aliment answering, as some apprehend, to our furnity.

The word is Greek, αμύλων, thus called, because made fine meal.

AMYLUM. See Starch.

AMYNTA, in Literary History, a beautiful pastoral comedy, composed by Tasso; the model of all dramatic pieces, whereon shepherds are actors. The Pastor Fido, and Fili di Siro, are only copies of this excellent piece.

AMYNTAE, in Ancient Geography, a people of Thebapots. Steph. Byz.

AMYNTAS, in Entomology, a species of Hesperia in the Fabrician family, with tailed wings; above blue, margin black; beneath cinerose with black points. Two ferruginous spots at the anal angle of the posterior wings. This is a small
AMY

a small insect, and inhabits Africa. Fabricius.—This is the Papilio Theolepis of Esper.

AMYNTICA empheia, in Pharmacy, defensive, or strengthening plasters.

AMYNTOR, properly denotes a person who defends or vindicates a cause. The word is amnatar, formed of the verb amnare, I defend or average.

In this sense Mr. Toland entitles his defence of Milton's life, Amnter, as being a vindication of that work against Mr. Blackhall, and others, who had charged him with questioning the authority of some of the books of the New Testament, and declaring his doubts that several pieces under the name of Chrift and his Apostles, received now by the whole Christian church, were supposititious.

Amyntor, in Entomology, a species of Hesperia.

Wings indented, tailed, black; a fulvous spot at the base, and yellow stripes at the tip. The wings are entirely black above, except the fulvous spots and yellow stripes beneath, yellow, with an arched black band; posterior end of the lower wings black with white dots. A native of India. Fabricius.

AMYOT, James, in Biography, was born at Melun in 1514, and rose from an obscure original to the high station of bishop of Auxerre, and great almoner of France. At the age of ten years he fell, for fear of chastisement, from the house of his father, who, as some say, was a currier; but according to Thuanus and others, a butcher; and being taken ill on the road, he was removed to the hospital at Orleans, where he was not only restored to health but charitably furnished with 16d. for defraying the expense of his journey home. This relief was required, on his subsequent prosperity, by a legacy of 1000 crowns to the hospital. He was afterwards a diligent student in the university of Paris, where he was maintained either by the industry of his parents or the charity of a lady, whose sons he attended at college; and at the age of 19 he attained the degree of Master of Arts. In 1537 he left Paris and accompanied the abbots of St. Ambroze to Bourges; and being recommended as preceptor to the children of William Bouchetel, secretary of state, he was thus introduced to the patronage of the princes Charles and Louis, Tutors of Francis I. who obtained for him the chair of public lecturer in Greek and Latin at the university of Bourges, where, for ten years, he read two lectures a day, one in Greek and the other in Latin. Here he translated the ancient Greek romance of Heliodorus, intitled, his "Ethiopic History, or the Loves of Theagenes and Charicles," which performance was much admired, and procured for him the abbey of Bellosana. At Venice, whither Amyot went in pursuit of preferment, after the death of Francis I. he was employed on a commission to the council of Trent, and having executed it with honour, he spent two years at Rome, prosecuting his studies, and ingratiating himself with those who were likely to serve him. By Cardinal de Tournon he was recommended to the king of France, and undertook the charge of educating his two sons in 1558. When the eldest of these pupils succeeded his father, under the name of Charles IX. in 1560, he immediately upon his accession to the throne, advanced Amyot to the dignity of great almoner, appointed him curator of the university of Paris, and conferred on him the honours and emoluments of the abbey of St. Corelille, and the bishopric of Auxerre. When the younger of his pupils, Henry III., came to the crown, Amyot was continued in his other offices, and in 1578 appointed master of the order of the Holy Ghost, then instituted. During the commotions and civil war which ensued, he remained in his diocese, and closed his life in 1593, in the 79th year of his age. In proof of the avverse, with which Amyot has been accused, and which enabled him to amass 20,000 crowns, it is alleged, that, when he was soliciting from Charles IX. another benefice, in addition to the lucrative dignities which he possessed, the king said to him, "How now, master ? you told me, if you had 1000 crowns a year, you would be satisfied: I believe you have that and more." —"True, sir," replied the bishop; "but appetite comes by eating." Of the learning of Amyot we have ample evidence in his translation of Heliodorus, and also of Plutarch's Lives, which is still held in high estimation in France; the first edition is that of Vaclofian, printed in 1573 and 1574, in 13 volumes, 8vo.; and Racine says of it, that this old translation possesseth a grace not to be equalled in modern language. As an apology for not complying with the request of those who wished him to write a history of France, he humorously urged, "that he loved his masters too well to write their lives." Amyot translated seven books of Dioctus Sicius, some Greek tragedies, and the pataulon of Daphnis, of which a beautiful edition, with plates, in 8vo. was published in 1713. His miscellaneous works were printed in 8vo. at Lyons, in 1613. Gen. Dict.

AMYRALDISM, in Ecclesiastical History, a name given by some writers to the doctrine of universal grace, as explained and asserted by Amyraldus, or Moses Amyraut, and his followers, among the reformed in France, towards the middle of the seventeenth century.

This doctrine principally consisted of the following particulars; viz. that God secures the happiness of all men, and none are excluded by a divine decree; that none can obtain salvation without faith in Christ; that God refuses to none the power of believing, though he does not grant to all his affiance, that they may improve this power to faving purposes; and that many perish through their own fault. Those who embraced this doctrine were called universalists, though, it is evident, they rendered grace universal in words, but partial in reality, and are chargeable with greater incon sistencies than the supralaparians.

Amyraldism is said to have been a system formed with a view of producing a reconciliation with the Lutherans.

AMYRAUT, Moses, in Biography, an eminent protestant divine, was born of a good family at Bourguet in Touraine in 1566. He was designed by his father for the profession of the civil law, which he afflictedly studied in the college of Poitiers; but preferring that of a divine, he applied himself to theology at Saumur in 1620, and obtained the professorship of divinity in the university of this place. With his two colleagues in office he lived in perfect harmony; and the three professors cordially concurred in their exertions for the credit of the seminary in which they prevailed. In 1631 he was appointed by the protestant synod at Charenton to present to the king their complaints concerning the violation of the edicts which had been passed in their favour; and being instructed not to deliver his address on his knees, which had been the usual mode, he was allowed to decline it, and the ability and address with which he conducted this business were admired by Cardinal Richelieu. His treatise "On Grace and Predestination," written at the request of a Roman catholic of rank, who was favourably disposed towards the protestants, excited much attention. This attempt, on the part of Amyraut, for reconciling the doctrine of predestination with that of universal grace, was violently opposed by the Calvinistic divines, and particularly by Du Moulin. Although Amyraut was enjoined silence with regard to these subjects of debate by the synod of Alem- son, he persevered in the contest; and such was, ultimately, his success, that the sentiments which he inculcated, and which
which nearly coincided with those of the Pelagians and Arminians, were received in all the universities of the Huguenots in France, and disseminated by the French protestants, who fled from the rage of persecution, through all the reformed churches of Europe. The talents, learning, and moderation of this able polemic, were much respected by the clergy and laity of all professions. His political opinions, which were favourable to the high pretensions of absolute monarchy, and which militated against those which were generally avowed by the Huguenots, and the advocates of religious liberty, served to recommend him to the particular notice and esteem of Cardinal Mazarin. In his Apology for the Protestants of France, published in 1647, he declares, that he will not pretend to justify the taking up arms against one's prince on any occasion whatever; and that he always believed it to be more much more agreeable to the nature of the gospel and the practice of the ancient church, to have recourse to no other arms than patience, tears, and prayers. In his book "On the Sovereignty of Kings," published in 1650, on occasion of the tragic death of Charles I, he expresses, in the strongest terms, his approbation of the doctrine of passive obedience. He excepted, however, those cafes of condescence, in which he regarded the authority of God as superior to that of man: and he so frequently refuted an order of the council of state, which required all the protestants to put out hangings before their house's Corpus Christi day, that the order was soon revoked.


Amyraut was eminently distinguished both by his writings and character. His moderation and candour secured the respect of persons of different sects; and his liberality to the poor comprehended alike the catholics and reformed, and it was so extensive, that he distributed in charity the whole salary of his ministry during the last ten years of his life. He died, much respected and regretted, in 1664, bearing testimony, in his last moments, to the truth and importance of those religious principles, by which the course of his life had been uniformly regulated. Gen. Dict. Monheim's Eccl. Hist. vol. v. p. 364, &c.

AMYRBERIS, in Botany, a name used by some authors to express the Barberry-tree. AMYRIS, a genus of the ordandria monogynia class and order, and of the natural order of terebinteae, Juliku. Its characters are, that the calyx is a perianthium, one-leaved, four-toothed, acute, erect, small, and permanent; the corolla consists of four, oblong, concave, and spreading petals; the stamens have awl-shaped, erect filaments, anthers oblong, erect, of the length of the corolla; the pistillum has a germ, superior ovate, style thickish, of the length of the stamens, and stigma four-cornered; the pericarpium is a drupaceous and roundish berry; and the seed is a round, shining nut.

Martyn, in his edition of Miller, enumerates 9, and Grisel, in his Linnaeus, 13 species. 1. A. elegantissima cornus of Plume, icere alba of Maregr. frutex trifolium of Cateby, with leaves ternate and pinnate, with five lobes, downy underneath. The height of this tree is about six feet; the leaves pointed, fluff, and shining; and leaves opposite on peduncles two inches long; at the ends of the branches grow four or five slender stalks, set with many very small white flowers, in a little corymb; the petals are inax at the tip. It has a small trunk, covered with a smooth, grey bark, and grows almost in the manner of a beech-tree. The fruit is of the size and figure of an olive, and the colour of a pomegranate, having within it an odoriferous pulp. A native of Carolina and Brazil. The rind of this tree is the Gum ELEMI, 2. A. fulva, with leaves teregate, corne, and acute. This is a erect, leafy shrub, from 2 to 15 feet high, according to the soil and situation, having a turpentine of a strong disagreeable smell: it is found plentifully about California in woods near the sea, and in flowers in August. 3. A. maritima, small, shrubby sweet-wood, with leaves teregate, crenulate, and obtuse. This is a dwarf shrub, yielding a juice like that of the former, but moreagreeable, and smelling like rue: the berry is of the size of black pepper, black when ripe, incoating a globular, brittle nut, in which is a white kernel. Swartz doubts whether the preceding he distinct species from this. It grows in very barren coppices, in a calcaneous rocky soil, both near the sea, and on the interior mountains of Jamaica, Hifpaniola and Cuba; and flowers from June to September. 4. A. Glycofera, balsam of Gymn, with leaves teregate, quite entire, and peduncles one-flowered, and lateral. This species is a shrub with purplish branches, having protuberant buds loaded with balfamic resin; the flowers proceed from the same buds by threes; the bracte minute and lightly bifid. It is doubtted whether this be distint from the next species. See Balsam of Gymn. 5. A. Opolsonum, balsam of Mecca tree, balsamum of Bellon, and Alpin, opobalsamum, or balsamum Judicium of Geoffroy, has pine leaves, and ellipse leaflets. See Balsam of Mecc, and Opolsonum. 6. A. toxifer, poison ash, cimfera of Linn. Hispanic, toxicon andro of Cateby and Miller, with leaves pinnate, and leaves petiolate and plane. Cateby describes his poison-wood as a small tree, with a light-coloured, smooth bark, the mid-rib of the leaf, as seven or eight inches long, and the pides as an inch in length; the fruit as hanging in bunches, shaped like a pear, of a purple colour, covering an oblong hard stone; from the trunk distils a liquid as black as ink, which the inhabitants say poison; birds feed on the fruit. It is a native of America. 7. A. pruniun, pruni Javanicum of Burm., tingulong of Rumph, with leaves pinnate, and leaves petiolate and waved. It is perennial, and a native of the East Indies. 8. A. ambrosiata, icada hepata of Linn. Guan, with leaves pinnate and petiolate, and panicules crowded and axillary. This is a tree, with a trunk 30 feet high, branching at the top, branchlets leafy and flowery; leaves alternate, with two or three opposite, ovate leaves on each side, ending in long points. Smooth, entire, on short-peduncles, gibbous at the base; flowers yellowish white, axillary, and corysmmed; petiole very small and four-toothed; petals lanceolate, spreading at the tip; filaments filiform, half as long as the calyx, inserted into the tube; germ, superior, subglobos, style cylindrical; stigma capititated, depressed and four-cornered; fruit ovate, oblique, four-celled, resembling that of the laurel; the nucleus involved in a brittle covering, four-celled, with four stones wrapped up in a vifid red pulp, having a balsamic smell and tarry, hardening into a grey resin, and used for burning as a perfume. The whole tree is very sweet.
sweet-scented, and yields a very odoriferous balm from the wounded trunk or branches, which is used in the dysentery; the dotte is one drawn in red wine; it is also used in houses and churches for burning as a perfume. It grows in the woods of Guiana, and by the sea-thore, flowering and fruiting in September. The Caribbce name is aramonoa, and the French arbre de l'Eveque. 9. A. balnsiniera, lucernum of Plak. Sweet amys, white candle-wood, or rosewood, with leaves two-paired. This grows to a considerable size, and is one of the most valuable trees in the island of Jamaica; the wood is white, and of a curled grain when young, but grows of a dirty, clouded ash colour with age, bearing a fine polish, and having a pleasant smell; it is heavy, and much esteemed among cabinet-makers. All the parts of this tree are full of warm aromatic particles, and may be used in baths and fomentations; the berries are oblong, and have the taste of the balm Copaiba. An infusion of the leaves has a pleasant flavour, is highly cephalic, strengthens the nerves, and is particularly reforlative to weak eyes. In Jamaica there are several species of amyris, the leaves and bark of which yield a fine balsamic juice; and if the body were tapped at the proper season, a thick liquor would trufudate, resembling that of the Gilead balsam, to which the taste of the bark and wood of the smaller branches bears a very exact relation. Dr. Wright apprehends that this wood, by distillation, would yield a perfume equal to the oleum rhodii. 10. A. kafos, with leaves ternate, ferrate at the tip, and dichotomous peduncles. Forik. Fl. Aeg. Arab. 11. A. balsamica, with leaves ternate, and pinnate, with five lobes, and flowers falcifolied and pentatetalous. Gleditch. Sehr. Berl. Naturf. 12. A. Zeylanica, with leaves pinnate, petiolated and smooth, racemes interrupted and axillary, and flowers involucrated and hexandrous. Koenig apud Retz. Off. Bot. 13. A. Guimana, with leaves pinnate, the pinne two-paired, and ovate-oblong, and racemose berries. Sloan. Hist. Jam. Gmelin’s Linneaus, and Martyn’s Miller.

AMYRIS. See XENIANA.

AMYRUS, in Ancient Geography, a town of Greece in Thessaly; its present situation is not known. There was also a river of the same name.

AMYSTIS, a river of India, so called by Arrian.

AMYTHAONIA, a district of Ellis, so called from Amythaon. Steph. Byz.

AMYTON, a town of Caria, according to Ptolemy.

AMYTRON, a town of Thrace, according to Hesychius.

AMYZON, a town of Asia Minor, in Caria, according to Strabo.

AMZEL, in Ornithology, the name of a bird found in the northern parts of Great Britain; but which is better known by the name of ring-ouzel. This is the Turdus torquatus of Linnaeus. See Torquatus.

ANA, in Commerce, the name of an Indian coin, in value somewhat more than one penny sterling.

ANA, ANAH, or ANA, in Geography, a town of Asa, in Arabia Deferta, situate on the Euphrates, in a pleasant and fertile country, which produces plenty of corn, olives, dates, oranges, lemons, pomegranates, figs, &c. It is under the government of an emir, tributary to the grand sifinor. It is the general resort of the robbers, who plunder the caravans that pass to and from Bagdad, Aleppo, Damascus, &c. 260 miles east of Damascus, and 300 north-east of Aleppo. N. lat. 32° 55'. E. long. 42° 4'.

ANA, ïïï, in Medicine, denotes an equal quantity of any things, whether in liquid, or in dry measure. Hence analcice proportio is used by some writers to signify the rate, or proportion of equality.
rebaptized. But we must not close under the same denomination those bishops of Asia and Africa, who, in the third century, maintained that baptism, administered by those whom they called heretics, was not valid; and therefore that such of them as returned into their churches ought to be rebaptized. Nor does it appear that there is sufficient authority to affirm, that the *Vindicta* and the *Mennonites* were precursors of the modern *Anabaptists*; though some of them adopted the practice of adult baptism.

It was not till a little after the time when the Lutherans separated from communion with the Remish church, that the *Anabaptists* began to make a noise in Germany. Storck, Stubner, and Munzer, were the first disciples of Luther, who, about the year 1521, were styled Anabaptists. But well knowing that their opinions were very different from Luther's doctrine, they availed themselves of his absence to disseminate them in Wittenberg, and had the address to over-reach the piety of Melancthon. Their principal purpose was to gain over the populace, and to form a considerable party. To effect this, says Bayle, they were indefatigable and active, each in his own way. Storck, wanting knowledge, boasted of inspiration; and Stubner, who had both genius and erudition, laboured at commodious explicatons of Scripture. Not contented with disseminating the court of Rome, and deriding the authority of consisitories, they taught, that men being entitled under the Gospel to equal liberty, could not be justly subjected to any civil power, nor erect supernendencies over each other; that, as all magistracy was an usurpation on Christlian freedom, no true Christlian could be either magistrate or subject, nor consequently pay any impost, give any oath, or bear arms; that violence and arms ought never to be made use of, excepting against princes, and people in power, from whom they were permitted to revolt, as from too many usurpers, who were to be pulled down, in order to erect the kingdom of God. They pretended that Christlians, being all free, equal, and independent, there ought to be no tribunal among them, nor laws, nor any distinction of property, but that every thing should be in common, nor any restraints with regard to the number of wives whom they might marry. In other respects they affected singular austerity, recommending jactations, fastings, and the utmost simplicity of apparel. Their fermons were, for the most part, declarations against the communion of the reformed; and they were incessantly exhorting everybody to join with them, who, as they said, were rent of God, to re-establish the kingdom of his Son. They made high promises to all who would unite with them to exterminate the impious, if this masse proved the epocha for the commencement of Christ's reign upon earth, when the just, meaning themselves, were to reign also, instead of the unrighteous usurpers of authority. They moreover affected to speak with a kind of contempt concerning exter nal worship, the sacraments, the ministry, and even the word of God, with a view to enhance the merit of the esaties, visions, and inspiration, to which they pretended, and on which they valued themselves. They dealt much in predictions, especially concerning the nearness of the last judgement; and, finally, to give a greater eclat to their party, they rebaptized all those who joined them; and to make their practice succeed, they taught that baptism administered to infants was void.

Munzer took the lead of this party; and, in 1535, assembled a numerous army of associates; but this insurrection was soon suppressed, and Munzer put to an ignominious death. Many of his followers, however, survived, and propagated their opinions through Germany, Swifterland, and Holland. In the year 1538 they formed a new community at Munster, under the direction of two Anabaptist prophets, John Matthias, a baker of Haarlem, and John Blockholdt, a journeyman tailor of Leyden. Having made themselves masters of the city, they deposed the magistrates, confiscated the estates of such as had clapped, and deposited the wealth they amassed together in a public treasury for common use. They made preparations of every kind for the defence of the city, and sent out emissaries to the Anabaptists in the Low Countries, inviting them to assemble at Munster, which was now dignified with the name of Mount Zion, that from hence they might be deputed to reduce all the nations of the earth under their dominion. Matthias, who was the first in command, was soon cut off in an act of frenzy by the bishop of Munster's army; and was succeeded by Blockholdt, who was proclaimed, by a special designation of heaven, as he pretended, king of Zion, and invested with legislative powers, like those of Moses. The extravagancies of Blockholdt were too numerous to be recited: it will be sufficient to add, that the city of Munster was taken after a long siege and an obstinate resistance; and Blockholdt, the mock monarch, was punished with a most painful and ignominious death. The *Baptists* in England and Holland, or, as they are there called, the *Mennonites*, are very different from those who first gave rise and name to the sect.

It must be acknowledged, that the first insurgents in Germany had been grievously oppressed; and that they took up arms principally in defence of their civil liberties; nor should subsequent extravagancies of violence be attributed to their religious principles, much less charged on their successors. The sequel of their history, and distinguishing tenets, may be seen under the article ANTI-PEDO-BAPISTTS, BAPTISTS, MENNOITES, WATERLANDIANS, &c.

ANABASIS, in Antiquity, the couriers who travelled on horseback, or in chariots, for the greater expedition. The word comes from the Greek *ánabasis*, mounting.

ANABASIS, in Botany, a genus of the *pamndia* elati and order, of the natural order of *babaraceae* and *atriplexes* of Jucieau: its characters are, that the calyx is a three-leaved perianthium, the leaflets roundish, concave, obtuse, and spreading; the corolla five-petalled, petals ovate, equal, less than the calyx, and permanent; the *fotamina* have filaments filiform, longer than the corolla, and anthers roundish; the *pilifnum* has a germ roundish, acuminate, ending in two styles, and obtuse stigmas; the *pervicu- trium* is a berry, roundish, surrounded by the calyx and di- luted; the *seed* is single and screw-shaped. There are four species. 1. *A. aptilis*, leaves *A. falloa* bacceera of *Gmel. Siber. kali bacciferum of Buxh. without leaves, and the joints emarginate. This is a perennial plant, and has been found wild on the shores of the Caspian. The berry, in a state of maturity, is large; it is red, the pulp is watery, and it dyes a yellow colour. *Gmelin* makes the anabasis ceteacea of Pallas and Gartner a variety of this species. 2. *A. falcifolia*, leafy *A. falloa* foliis incrassatis, &c. of *Gmel. and Pallas*, kali bacc. fol. clavatis of Buxhbaum, with leaves subclavate. It is seldom more than half a foot high; annual; found wild on the shores of the Caspian. 3. *A. tamarijefolia*, tamarisk-leaved *A*. with awl-shaped leaves and juiceless pericarps. This is a shrub with white branches, very smooth; a native of Spain. 4. *A. spinifolia*, thorny *A*. shrubby, branches without leaves, but full of spines; the native place of growth is unknown.

ANABASIS, in Medicine, the slake of a disease in its growth.

ANABASISUS, a name given by Pliny to a plant, which he calls alio *ephebra*, and describes as hanging down from
LANCICNINC, the mounting them yalaquity, the Ornithology, firrups, brown inns, species more the name Pifidia. kind place Ipecica Bill twenty vented. of It the fion mountains, U'lkrrs, office foot-boards gene by ANARLATUM, ANABIBAZON, AN...
calyx, one thicker, double the length of the others, lying on the germ in front, anthers roundish, in the longer filament large and fertile, in the rest small; the _pistillum_ has a germ kidney-shaped, obliquely emarginate in front, style subulate, bent in, the length of the corolla; stigma small, roundish, defrizzled, and concave; no _pericarpium_; receptacle fleshy, very large and obovate; the seed a nut kidney-shaped, large, at the top of the receptacle, with a thick shell, cellular within, and abounding in oil. The _calyx, corolla, and flamina_ of the male flowers as in the hermaphrodites; the _pistillum_ has either no germ, or one that is abortive. There is one species, _Anacardium occidentale_, acajuba occidentalis of Gartner, acajou of Píno, acajuba of Maregrave, caffuvinum of Rumphius, cachon of Merian, kapa-mava of Rheed, _anacardium frutescens_ ovato nuce reniformi, racemi terminalibus of Browne, Jamie. Cachew-nut, caffu, or acajou. The cachew is an elegant tree, 12 or 16 feet high, spreading much as it rifes, and beginning to branch at the height of five feet, according to Browne; and Long affirms, that in good soils it spreads to the size of a walnut tree, which it resembless in the shape and smell of the leaves: the trunk seldom exceeds half a foot in diameter; the leaves are coriaceous, subobovate, shining, entire, petioled, and factured alternately; the panicles corymbose, diisetc, and terminating, containing many small, sweet-smelling flowers, on an oblong receptacle, scarcely distinguishable from the peduncle; the corolla red, with commonly 10 flaments, one of which has no anther, but it has frequently eight or only seven all fertile; and there are sometimes female flowers entirely deficate of flaments. The fruit has an agreeable fubacid flavour, in some degree refringent; in some of a yellow, and in others of a red colour, which difference may be probably owing to the soil or culture. The juice of the fruit, fermented, affords a pleasant wine, and distilled, yields a spirit exceeding arrack or rum, and serves to make punch, and also to promote urine. The ripe fruit is sometimes roasted, and fliced, and thus used for giving an agreeable flavour to punch. The reftingrness of the juice has recommended it as a remedy in dropical habits. From one end of the apple proceeds the nut, which is kidney-shaped, inclosed in two shells, the outer of an ash-colour, and smooth, and the inner covers the kernel. Between these shells is lodged a thick, inflammable, and very caustic oil, which, incautiously applied to the lips and mouth, inflames and excoriates them. This oil has been successfully used for eating off ring-worms, canicular ulcers, and corns; but it should be very cautiously applied. Some of the females have used this oil as a cosmetic, in order to remove the freckles and tan occasioned by the scorching rays of the sun, but it proves fo corrosive as to peel off the skin, and cause the face to inflame and swell; but after enduring the pain of this operation for about a fortnight, their new skin, as it may be called, appears fair like that of a new-born infant. This oil also tinges linen of a rusly iron colour, that can hardly be got out; and when smeared on wood, it prevents decay, and might therefore serve for preserving houte timber and shipps bottoms. The fresh kernel has a delicious taste, and abounds with a sweet milky juice; it is an ingredient in puddings, &c. and is eaten raw, roasted, and pickled. The negroes of Brazil, who are compelled by their masters, the Portuguese, to eat this nut, for want of other fullcance, obtain relief from this involuntary use of it in various disorders of the stomatch. When the kernel is ground with cacao, it improves the chocolate; but if it be kept too long it becomes shrivelled, and loses its flavour and belt qualities. The milky juice of the tree, obtained by tapping or incision, will stain linen of a deep black, which cannot be washed out; but whether this has the fame property with that of the easter _anacardium_ has not yet been fully ascertained; for the infipidice juice of that tree is the best for be which is used for filling black in China or Japan. Phil. Trans. vol. xlix. part ii. p. 872. Lewis Comm. Phil. Techn. p. 329, &c. This tree annually transfiles from five to ten or twelve pounds weight of a fine semi-transparent gum, resembling gum-arabic, and not inferior to it in virtue or quality, except that it has a flight astringency, which may probably, in some respects, render it more valuable. It is a native of both Indies, e.g. Malabar, Ceylon, Brazil, Guinea, Jamaica, and the Caribbean islands; and was cultivated in Kew Garden in 1659, by the duchess of Beaufort.

**Culture.**—The cachew tree is easily raised in its native country from the nut; and it is of quick growth, bearing fruit in two years after it has been planted. But in England the plants are preferred with difficulty. They are easily raised from the nut supplied from America; and they should be planted in small pots filled with light handy earth, and plunged into a hot-bed of tenant's bark, which should be preferred from moiture. Fresh nuts will yield plants in about a month, and in two months these will be four or five inches high, with large leaves, but they seldom advance much farther in the fame year. The plants must be constantly kept in the fove, as they are too tender to live abroad in England, even in the warmestfavons. They should have little water in Summer, and in Winter, water once in a fortnight will be sufficient. When they are transplanted, the pots should be broken, that the earth which cleaves to their roots may not be disturbed; and they should then be put into larger pots, filled with light handy earth, and plunged into the hot-bed. They must not be removed oftener than once a year, and the pots should not be too large, for unless their roots are confined they will not thrive. With this management they may be kept several years, but they seldom exceed two feet and a half in height, and are seldom half as high. Martyr's Miller. Murray's Mat. Med. vol. iv. p. 413.

**Anacardium Oxirale.** See _Avisenna._

**Anacardium Officinale._ See _Semecarpus._

**ANACATHARSIIS, in Medicina, properly denotes a purgation by spitting; in which sense it stands contradistinguished from _catharsis_, or evacuation downward. In this sense is the word used by Hippocrates and Galen; agreeable to this Blafius refinns _anacathartico_ to expectoration. Only Blanchard, on what authority does not appear, extends _anacathartic_ medicines to all those which work upwards, by the glands of the head, whether vomitinges, fetiduates, or medicinalis.

**Anacatharsis is also a name given by civil lawyers to the _Basileon repetito Prefectionis_, made by order of the emperor Constantin Porphyrogenitus. It was thus called, as being a review or correction of the _Basileon._

**Anacathartic, among Divines, denotes the clearing up some obscure passage, by a spiritual or analogical interpretation.**

**ANACATHARTIC, from _an_, upward, and _katharein_, I purifie, is usually underdstood of a vomit, or a purging medicine that works upwards.**

**ANACEIA, an Athenian festival in honour of the Diocuri. It took its name from those deities, who were also called _Arkes_, and honoured with a temple called _Akomion_, _Anacuc._ The Anaces, Anacutes, and Diocuri have been thought by some writers to be the same with the Cabin of the ancient Carthaginians, but others are of a different opinion. However this may be, they were undoubtedly descended from the Anakins of Moesia; and Inachus was also of...
of this race, as his name imports. Some have supposed, that the appellation Anakites was given to those princes of the line of Abus, who had distinguished themselves by their heroic actions.

The sacrifices offered at that time were named θυσίαι, because those deities were θεοί, or strangers; and consisted of three offerings, which were called θυσίαι. Athenaeus mentions plays acted in honour of these deities.

ANACEPHALOÉYSIS, formed of θανατος, which in composition signifies θανατός, head. In Rhetoric, a reappearance, or a short and summary repetition of the heads of a discourse.

ANACHARIS, in Biography, a Scythian philosopher, was the son of a Scythian chief by a native of Greece, and flourished about 600 years before Christ. Having acquired an early acquaintance with the Greek language, he was enticed by his sovereign with an embassy to Athens; and in the full year of the 47th Olympiad, i.e. 592 B.C., he was conducted by Taxis, one of his countrymen, to the house of Solomon. Anacharsis availed himself of the opportunities which free and familiar intercourse with Solomon afforded him for gaining a wisdom: he was introduced to the society of the principal persons at Athens, and he was the first stranger upon whom the Athenians conferred the honour of citizenship. After the death of Solomon, and probably not before, Anacharsis left Athens, and travelled into other countries; and at last returned to Scythia, with a design of communicating to his countrymen the knowledge he had acquired, and of establishing among them the deities and the worship of Greece. But his attempts were ineffectual. Whilst he was performing sacred rites to Cybele, in fulfilment of a vow which he had made upon his way home, he was killed by an arrow directed against him, as report says, by the king's own hand; so that he fell a sacrifice to the envy and folly of his countrymen, who would not confound it to be instructed by Grecian wisdom. The phrase, "Scythian eloquence," was derived from the manly and nervous kind of language for which he was distinguished. He is said to have been the inventor of the anchor and potter's wheel, but these imitations were known before his time; however, he might have introduced the use of them among the Scythians. Of his ingenious sayings that are recorded, the following deserve to be mentioned: "The best method of teaching a youth sobriety is to let before his eyes a drunken man." "The vine bears three sorts of fruit: the bril, pleasure; the second, intoxication; the third, remorse." "An ape is by nature ridiculous; man, by art and study." To an Athenian of infamous character, who reproached him for being a Scythian, he said, "My country may be a disgrace to me; but you are a disgrace to your country." As he was one day considering the thickness of the planks of a ship, he cried out, "Alas! those who go to sea are but four inches distant from death." Being asked what was the most secure ship, he replied, "That which is arrived in the port." He often repeated, "That every man should be particularly careful to make himself master of his tongue and his belly." Being asked what was the best and what the worst part of a man, he answered, "The tongue." "It is much better," said he, "to have but one friend, if he be faithful to us, than a great number of those who are always ready to follow the change of fortune." He used to compare laws to spiderwebs; and to ridicule Solomon, who pretended to restrain the passions of mankind by pieces of writing. He observed, "That the prince who is wise is happy; and that that city is best wherein all things else being equal, virtue hath the better condition; vice the worse." The epithets that bear his name are probably spurious. Herodotus, lib. iv. Plut. Vit. Solon, apud Opera, tom. i. p. 80. Diog. Laertius, lib. i. tom. i. p. 64. Strabo, lib. vii. tom. i. p. 461. Brucker's Hill of Philos. by Enfield, vol. i. p. 124. The Travels of Anacharsis the Younger in Greece, by the Abbé Barthélemy, compiled in seven volumes, 8vo, with a volume of maps, &c. in 4to, is a work in high estimation.

ANACHIMOUS, in Geography, a province of the island of Madagascar, having on the east the river Manghara, which runs through it, the country of Manaroule on the south, on the west large and lofty mountains, and on the north the river Manghara and the country of Emragadra. This province produces great quantities of rice and yams, with plenty of cattle, and other necessaries of life, and is extremely populous.

ANACHIS, in Mythology, one of the four deities, to whom the Egyptians imagined the peculiar care of each person was committed at his birth: the other three were Dymon, Tyche, and Hercules. They were also called Dynamis, Tyche, Eros, and Anarches; i.e. Power, Fortune, Charity, and Necessity.

ANACHORESIS denotes a withdrawing from society, or retiring into solitude. The anachoresis was not allowed to persons before they had spent thirty years in the community.

ANACHORET, from ανακορην, I retire into a solitary place, a hermit or devout person, living alone in some defect, to be farther out of the reach of the temptations of the world, and more at leisure for meditation. Such were St. Anthony, St. Hilary, &c. Paul the Hermit was the first of the tribe of anachorists.

When many of the habitations of anachorists were placed together in the same wilderness, at some distance from one another, they were all called by one common name, laura, which, as Evagrius informs us, differed from a cenobium, or convent, in that a laura consisted of many cells divided from each other, where every monk provided for himself; but a cenobium was one habituation, where the monks lived in society, and had all things in common. Anachorists, popularly anachorists, were very numerous among the Greeks, confining principally of monks; who not caring for the fatigues and offices of the monastery, purchased a little spot of ground, with a cell, whither they retreated, and never appeared in the monastery again excepting on solemn days. These are sometimes also called effects or solitary.

They had their chapel, and after prayers applied themselves to the culture of their vineyards, olives, fig-trees, and the like, which afforded them provision for the year.

These anachorists only differed from the conventual monks, in that they had less intercourse with the world, and lived but in small bodies.

The anachorists of Syria and Palestine retired into the most obscure and unfrequented places; hiding themselves under rocks and mountains, without either tents or cottages, repelling wherever the approach of night happened to find them, and living on the spontaneous productions of the earth. This course of life they pursued, that they might avoid the view and the society of mortals.

There have also been anachorists in the West. Peter Damas, who was of the order of hermits, frequently speaks of them with great praise. He represents them as by far the most perfect sort of monks; holding them in much higher opinion and estimation than the canons, or monks residing in monasteries.

Many of these retire, with the leave of their abbots, and have an allowance from the monastery. The people, on account of their piety, present them with good sums of money, which they carefully hoard up, and at their death bequeath to the monastery they had belonged to.

ANACHORETA, in Entomology, a species of phalaena, of the bombyx tribe, which, till lately, was confounded with
with phalana curta, from which it chiefly differs in having a white streak across the brown spot at the tip of the anterior wings. Its specific character is, wings grey, with white streaks; at the tip a furruginous-brown spot, marked with a waved streak of white. Fabricius. Feeds on the willow and poplar in the larva stage. The larva is hairy, brown with a flesh-coloured stripe along the back; two elevated warts, and lateral dots of rufous colour. Inhabits Austria.

**ANANCHORITA**, in *Ecclesiastical Writers*, a name sometimes given to the cells of recluses.

By the ancient canons, no anachorita could be erected without consent of the bishop.

**ANACRONISM**, compounded of *aUCT, higher, and σκόπος, time*, in *Chronology*, an error in computatio of time; whereby an event is placed earlier than it really happened.

Such is that of Virgil, who placed Dido in Africa at the time of *Kneus*; though, in reality, she did not come there till 300 years after the taking of Troy. An error on the other side, whereby a fact is placed later or sooner than it should be, is called a *parachronism*; though this distinction is not commonly observed.

**ANACHTISMIS**, in *Natural History*, a species of *Echinus*, of the second order of *Vermes, Melissus*; it is heart-shaped, rather oblong, and somewhat conic, base flatish. Spaces and divisions ten; mouth fimbriate, surrounded with an elevated margin; vent oval, notched below. Klein and Linn. Found in a fossil state.

**ANACIUM**, in *Ancient Geography*, a mountain of Attica, on which was a temple of Callic and Pallas.

**ANACLASTIC**, *glæsus, virtus anachyclus*, a kind of fomorous phials or glases, chiefly made in Germany, which have the property of being flexible, and emitting a vehement noise by the human breath. They are also called vexing glases, by the Germans *vexier glaser*, on account of the fright and disturbance they occasion by their reflection.

The anaclastic glases are a low kind of phials with flat bellies resembling inverted funnels; whose bottoms are very thin, scarce surpassing the thickness of an onion peel: the bottom is not quite flat, but a little convex. But applying the mouth to the orifice, and gently inspiriting, or as it were fucking out the air, the bottom gives way with a horrible crack; and from being convex becomes convex c. On the contrary, upon expiring or breathing gently into the orifice of the same glas, the bottom with no left noise bounds back on its former place and becomes gibbous as before.

The anaclastic glases first taken notice of were in the castle of Goldbach; where one of the academists *Nature Curiosorum*, having seen and made experiments on them, published a piece expressly on their history and *phenomena*. Rolini Lentii Orbilibi Sebed. de Vitris Ancaphilicas. Vid. Ephrem. Acad. N. C. Dec. 2. Ann. 3. p. 489; lvq. Their figure may be seen in the book above cited.

They are all made of a fine white glass. It is to be observed in these, 1. That if the bottom be concave at the time of inspiration, it will burst, and the like will happen if it be convex at the time of expiration. 2. A strong breath will have the same effect even under the contrary circumstances.

**ANACLASTICS, or ANACLASTIC**, derived from *aUCT and κλασσω, I break*; that part of optics which considers refracted light, and is the same with what we more usually call *DYOPTICS*.

**ANACLETHERIA**, formed of *aUCT and κλασσω, I call*; in *Antiquity*, folkma feats celebrated in honour of kings and princes when they came of age, and took upon them the administration of the state, and made a solemn declaration thereof to the people.

**ANACLETICUM**, in the *Ancient Art of War*, a particular bruit of the trumpet, whereby the fearful and flying soldiers were rallied, and recalled to the combat.

**ANACLETUS, or CLETUS, of ANACLETUS, i.e. irrefrangible**, in *Biography*, a pope, reckoned by Roman Catholics the third; succeeded *Linus* as bishop of the church of the Romans; and, according to *Eusebius*, in the *auct. Eccl. lib. iii. c. 13. 15.* in the second year of the reign of Titus, or in 69, A. D. and governed that church 12 years. This bishop has been enrolled among the saints and martyrs, though there is no satisfactory evidence of his martyrdom.


**ANACLETUS** was also the name of a competitor for the popedom against *Innocent II*. It was the grandeur of a circumcised Jew, named *Peter* of Leon. When *Innocent II*. was acknowledged as successor to the papal chair by the emperor *Lotarius II*. upon the death of *Honorious II.* in 1128, *Roger*, King of Sicily, did homage to *Anacletus*, who was for some time master of Rome. After the defeat of *Roger*, upon whom he had conferred the title of king of Naples and Sicily, he was obliged to yield to his more fortunate competitor. He died in 1138, and his memory has been reproached with scandalous vices. Dupin.

**ANACLINOPAL**, from *anac. clock. I recline*, and σκόπω, *arms*, in *Antiquity*, a kind of wrestling, wherein the champions throw themselves voluntarily on the ground, and continued the combat by pinching, bitings, scratching, and other methods of offence.

The anaclinopale (or contradistensible) was the orthopale, wherein the champions were erect. In the anaclinopale, the weaker combatant sometimes gained the victory.

**ANACLITUS**, the denomination of those Britons, who are placed by most of our antiquaries in that district of Berkshire which is adjacent to Henley.

**ANACLINTERIA**, in *Antiquity*, a kind of pillows on the dining-bed, whereon the guests used to lean. The ancient triclinary beds had four *stola*, one at the head, another at the feet, a third at the back, and a fourth at the breast. That on which the head lay was properly called the Greeks, *ανακλίντορον*, or *ακλίντορον*; by the Romans *fatum*, sometimes *pleatus*.

According to other writers, anaclinteria is more properly understood of the backs of chairs whereon we lean.

**ANACOISNIS**, from *anac. clock. I communicate*, communicato, a figure in *Rhetorics*, when we consult the adversary, or appeal to the judges what ought, or could have been done on such an occasion.

Such is that of Cicero, *Quo pro Cunjente, ut in hoste domum tuam re- ducant, conti bominis et armatis, non modo limine telopea ediam tuam, sed primo adita vestibuloque probabere, quid aliamus?* Cicero pro Cestio.

**ANACOLOMA**, formed of *ανακολαω, conglobato*, in *Phyle*, denotes a limen or other medicine applied to the forehead, to stop or prevent delusions of the eyes.

*Anacolotoma* makes a species of medicines called *fronatulae*. The qualities required are, to be drying, cooling, thickening, altringent, conglutinant, &c.

To the class of anacoloma belong bran, manua, myrrh, terra firma, acacia, &c.

Junker describes an *anacoloma frontale* for stopping hemorraghes at the nose.

**ANACOLUTHON**, from *ανακολουθω, incoherent, among Ancient Grammarians*, denotes an incoherence, or a construction which does not accept. This is usually signified by the
the appellation of a figure which ought rather to be denominated an inaccuracy.

ANACONDA, in Zoology, a name given in the life of Ceylon (and adopted by some naturalists) to a very large and terrible snake, which, it is said, often devours the unfortunate traveller alive, and is itself accounted excellent and delicious fare. This creature is described as a species of rattlesnake, but it is far more probable that it is not of that genus. It is generally believed that rattlesnakes are altogether peculiar to the American continent; nor is there any known species of rattlesnake that corresponds with the description of this tremendous creature; the largest kinds, fearfully exceeding four, five, or at most six feet in length.

Perhaps the snake in question may be leo ceylanicus of Linnaeus, which it is known sometimes grows to the length of twenty or thirty feet, and is of such prodigious strength, that it is able to destroy almost any other animal. It is a species found in the Indian islands, and is eaten by the inhabitants.

ANACOPIA. See ABCHAS.

ANACREON, in Biography, a Greek lyric poet, was born at Teos, a sea-port of Ionia, and flourished during the reign of Polycrates, tyrant of Samos, at whose court he resided, in the first century before Christ. His fame was such, that Hipparchus, the son of Philatus, as we are informed by Ptolemy (in his hippocoon) sent a velvol of 50 oars to bring him to Athens. After the death of Hipparchus he returned to Teos, and afterwards removed to Abdera, the place of his youthful residence, where he died at the age of 85 years.

Report says, that his death was occasioned by a grape-juice, which choked him whilst he was drinking new wine. He was a professed voluptuary, and habituated to the unrestrained gratifications of wine and Venus—

"Quid, nihis cum multo Venus confundere vino
Præcipient lyrici Teia mufa Senis?"

His attachment to Cleobulus is recorded by Maximus Tyrius, (Orat. ii.) and the ardour of his passion for Bathyllus is mentioned by Horace. Epod. xv. v. 9.

"Non alter Samio dicant arbite Bathyllvo
Anacreaon Tetum,
Qui peripha cava telludine fluvem amorem."

Ælian (in his Var. Hist. lib. ix. c. 4.) has endeavoured to vindicate his character; but the charges against him are too well founded to admit of refutation. During his residence at Samos, Polycrates made him a present of 5 talents, equal to about 5625l. sterling. Unaccustomed to the possession of such a sum, he could not enjoy his usual repose, and he therefore hastened to restore it to the generous donor, alleging, that while he had so great a charge in his custody, he should never be able to write or sing again. The poems of Anacreon, that are extant, consist chiefly of Baccalian songs, and love-fonets. They are mostly composed in verses of seven syllables, or rather of three and a half feet; spondees and iambs, and sometimes anapests; and hence verses in that measure are sometimes called Anacreonics, or Anacreontic verses. The odes of Anacreon abound in suavity, sprightliness, and elegant fancy; they are sweeter, says Scaliger, than Indian sugar; and, according to Mad. Dacier, the chief beauty and excellence of Anacreon consisted in his imitations of nature, and in his following reason; so that he presented to the mind no images that were not noble or natural. The odes of Anacreon, says Rapin, are flowers, beauties, and perpetual graces; it is familiar to him to write what is natural and to the life; and he poetised an air to dedicate, gay, and graceful, that, among all the ancients, there is nothing comparable to his method, nor to the kind of writing which he pursued. He flows, adds this writer, soft and gay, diluting the joy and indulgence of his mind through his verse, and tuning his harp to the smooth and pleasant temper of his soul. The character of his writings is justly given by the God of Love, directed to speak by Mr. Cowley:

"All thy verse is softer far
Than the downy feathers are,
Of my wings, or of my arrows,
Of my mother's doves and sparrows;
Graceful, cleanly, smooth, and round,
All with Venus' giddle bound."

The authenticity of some of those poems, which have been disdained by his name, has been suspected, but they have been acknowledged by ancient writers; nor is it probable that imitations, composed at different times by different authors, should invariably retain the same style and dialect. Of these odes we have had translations in various languages. Of the original the best editions are those of Barne and Baauw; and the free versions of Cowley are the most approved English imitations. The odes of Anacreon have been lately, in 1801, translated into English verse, with notes, by Thomas Moore, Eq. 4to. Gen. Dict.

ANACRISIS, from anacris and ssus, I judge, among the Ancient Greeks, is used for a kind of trial or examination, which the archons, or chief magistrates of Athens, were to undergo before their admission into that office. The anaerifics was disdained from the pocmnica, which was a second examination in the forum. The anaerifics was performed in the senate-house. The questions were proposed to them who were considered their family, kindness, behaviour, estate, &c. Some maintain that all magistrates underwent the anaerifics.

ANACRISIS, in the Civil Law, denotes a search or inquiry into the truth by examination of witnesses.

ANACROSIS, in Antiquity, denotes a part of the Pythian song, wherein the combat of Apollo and Python is described.

The anaerifics was the first part, and contained the preparation to the fight.

ANACTON pedon, a festival held at Amphissa, the capital of Locris, in honour either of the Dioscuri, or of the Curetes, or Cabiri, about which authors are not agreed.

ANACTORIA, now Voncea, in Ancient Geography, a town of Acarnania, at the extremity of the peninsula, at the entrance of the gulf of Ambracia. Stephanus Byz. says, that it was founded by a colony of Corinthians. Augustus transported its inhabitants to Nicopolis.

ANACUIAS, in Geography, a people of America, in Brazil, on the borders of the country policed by the Portuguese, under the appellation of Capitania de Sergipe.

ANACYCLUS, fantolinoides of Vaillant, and cotula of Tournecourt, in Botany, a genus of the fynemea polygama family, composed of plants of the natural order of composite dicotyledons, and coromibera of Jullieu; its characters are that the calyx is common, hemispherical, and imbricate, with many ovate, flat sharp scales; the corolla is compound and radiate, with numerous hermaphrodite corollas in the disk, from five to ten females in the ray, scarcely higher than the disk; the hermaphrodites funnel-shaped, with a quinquefoil, spreading...
spreading border; females with a flattened tube, and an ovate entire border; the *flamina* in the hermaphrodites; filaments five, capillary, and very short; anther cylindric; *pillillum* a germ flattened, stigma bifid, in the hermaphrodites, with a membrane on each side, style, stilmform, of the length of the corolla, and two slender reflex stigmata in the florets; *pericarpium*, calyx unchanged; *seed* in the hermaphrodites solitary, oblong, compressed, naked, or downy; in the females with a very broad, membranaceous wing on each side, and emarginate at top, but without down; the receptacle chaffy, chafis obtuse with a point. There are four species. 1. A. *creticus*, *cretula* reticulata, &c. of Tournefort, Lantomiroides annua, &c. of Vaillant, taining ancyclus, "with leaves decumbent, linear, and foliolous divided and flat." 2. *A. oritulais*, chamaemelum orientale, &c. of Tournefort, *ealter a." with leaves compound, brilly, acute, and straight. These two species grow naturally in the islands of the Archipelago, whence their seeds were sent by Tournefort to the Royal Garden at Paris: their seeds have been also received from Portugal. They are low plants, with branches trailing on the ground. The first leaf has fine-cut leaves, like those of chamomile; the flowers are small, white, and grow single, with their head declining, like those of the common May weed. The second has leaves like those of the ox-eye; the flowers are white, and like those of chamomile. 3. *A. aureus*, chamaemelum luteum capitata *aphylo* of Bakhin, anthemis chrysanthenum of Loh. golden-flowered a, "with leaves bipinnate, roundish, hoary, and hollowed." This species is a native of the south of Europe and the Levant, and was cultivated here in 1739. 4. *A. sulcatus*, chrysanthenum valentinum of Clausius, pherulanthum lindsay, *flora* of Halai, chamaemelum tempulatum, flor colabathus aureos of Bar. "with leaves decumbent and linear, foliolous divided, roundish, and acute; the flowers flocculose." This grows a foot and a half high, sending out many side-branches; the leaves are finely divided and hairy; the flowers are single at the end of the branches, and are of a bright yellow colour, with a filervice, seedy calyx; they are as large as those of the ox-eye. It is a native of Spain and Italy; cultivated in 1656 by Tradescant; flowering in June and July.

**Culture.**—All these plants are annual; the seeds should be sown early in the Spring, in a border of light earth, where they are designed to remain, and need no other care that to be thinned and kept free from weeds; they flower in July and August, and their seeds ripen in September. Martyn's Miller.

**ANADARA**, in Conchology, a name by which some naturalists have distinguished the species of *Arca*, called antiqua by Linnaeus. Adan. Seneg.

**ANADAVADAEA**, in Ornithology, the name of a small bird of the East Indies, which has the beak of a chaffenich, and the feet of the lark. It is sometimes brought over to England alive in cages, and will live here very comfortably.

**ANADEMA**, formed of *anadema*, to be bound round, among the Ancients, denotes an ornament of the head, wherewith victors at the sacred games had their temples bound. Some confound the anadema with the diademis, worn by the ancient Perian kings. 

*Anadema* are also mentioned by ancient writers among the ornaments of the heads of women. 

According to some, *anadema* answers to what the Latins call *redimusculum*.

**ANADIPLOSIS**, *anadiplosis*; from *an*, again, and *di-****

**ANADROMOUS**, in Ichthyology, a term of distinction applied by some early naturalists to those migratory fishes that have their flitted times of going from the fresh-water to the salt, and afterwards returning back to the fresh-water again.

The word is derived from *an*, back, again, and *delta*, a course. Many of the fish genus are of this kind, and particularly *salarias*, or the common salmons, whose periodical returns from the sea to deposit its spawn in fresh-waters is well known. The method nature has appointed for their course of changes seems to be this: they are first produced from the spawn in fresh-water rivers; they live there till they acquire some strength and size, and then seek the salt-water to feed more at large; and, growing to their full extent, at which period they return to the fresh-water again to lay their spawn, that the young brood may have the same advantages which they had before, of being placed in fresh-water. Some ufe the word *cotanadromus* in the same fene.

**ANADUOMENE VENUS**, in the Cretian Mythology, answerfed to the *Sea-Venus* in the Roman, and was the appellation given to one of the chief deities of the sea. The moft celebrated picture in all antiquity was that of this goddess by Apelles; and the famous Venus of Medici is a *Sea Venus*.

**ANADYR**, in Geography, a river of Siberia, that rises in the country of the Tchuktehi, out of a lake (N. lat. 60° 20'. E. long. 175° 41') among the frontier mountains which are a continuation of Stanoevi-Krebet, and discharges itself into that part of the Eastern or Pacific Ocean, which is called the *Sea of Anadyr*, Anadyrskhain gulf, or bay of Anadyr. N. lat. 65°. E. long. 177° 34'. This river receives many streams, besides the brook “Yablona, which gives the name of Yablomei-Krebet to the range of mountains where it springs, but none of them are very large. Its bed is in general sandy, and its current by no means rapid; its channel is very broad, and contains a considerable number of islets, but of so little depth, that it can scarcely be crossed in any part with the common ferry-boats of that country, called *shitiki*, which are beaved together, have no iron in their construction, and draw no more than two feet of water.

From the source of the Anadyr to the brook Yablona, the country is mountainous and bare; below the Yablona are some trunks of meadow-land and some poplar trees; and on the mountains to the left, for at least 100 versts above Anadyrskoi-oitrog, are this woods of larch trees and dwarf Siberian cedars. The whole of the northern region, as far as the Anadyr, is in general defirute of standard trees, and has scarcely any pices fit for pulture; whereas,
whereas, south of the river, at no great distance, especially about the head of the main, the Peninns, and the Aklan, are forests of tall timber in abundance. From the Amadry to the Kokama and the Frozen Ocean, and throughout the whole country of the Tchukichi, no more forest has been discovered: the meadow shrubs scarcely shoot above a span high, as in the whole tract along the northern coast of Siberia. But so much the more frequent are the flats, overgrown with yellow and white mols, on which innumerable herds of wild rein deer feed pastoure. Tooke’s View of the Russian Empire, vol. i. p. 250.

ANA Gänkia Gulf, a bay of the Pacific Ocean, on the coast of Siberia, extending from Cape Apostol-Thad Bou. E. long. 17° 24’. N. lat. 61° 3’. to the bay of Saint Lawrence, E. long. 78° 14’. N. lat. 65°.

ANADYSKOLI, a fortified town of Siberia, on the river Amadry. E. long. 165° 14’. N. lat. 65°.

ANADYSIS, among Ancient Divine, denotes the ceremony of the emersion in Baptism.

In which sense are; stands contradistinguished from Ato, or immersion.

ANEA, in Ancient Geography, a town placed by Stephan. Byz. in Caria, opposite to the Isle of Samos, which took its name from one of the Amazons who was buried there; and which was the birth-place of Menelas, a peripatetic philosopher and celebrated historian.

ANADATEIA, in Antiquity, a denomination given to a silver flord placed in the aryzoplaus, on which the defendant or person accused was feated for examination.

The word is Ato, which imports impudence; but according to Justin’s correction, it should rather be Ato q. d. innocence.

The plaintiff or accuser was placed on an opposite floor, called Ato, or injury; here he proposed three questions to the party accused; to which positive answers were to be given. The first, are you guilty of this fact? the second, how did you commit the fact? the third, who were your accomplices?

ANÁRETA, in Astrology, a place in the heavens, at the which the Apétha arriving, an infant born at that time, is pronounced by astrologers in danger of death.

The word is Greek, and literally imports a ruin off.

In this sense, anáreta stands opposed to Apétha.

ANÁRETA, among the Greek Astrologers, amounts to the fame with what the Arabs call abanm.

ANAESTHESIA, anáesthesia, in Medicine, a privation of sense, or of the faculty of perceiving external objects. The species or degrees of this are Ato, habitudo, depravatio, &c. The sense of feeling may be injured by any thing that obstructs the nervous influence, or prevents its being regularly conveyed to the organs of touch, as prelure, extreme cold, &c. It may likewise be impaired by too great a degree of sensibility, when the nerve is not sufficiently covered by the cuticle or earl-skin, or where there is too great a tension of it, or it is too delicate. Whatever disorders the functions of the brain and nerves hurts the sense of touching; and hence it seems to proceed from the sense general caufes, as palsy and apoplexy, and requires a similar treatment. In a Ato, or defect of touching, which arises from an obstruction of the cutaneous nerves, the patient must be first purged, and then recourse should be had to such medicines as excite the action of the nerves, or stimulate the fyllem. For this purpose the spirit of hartshorn, either by itself or combined with effential oils, horse-radish, &c. may be taken inwardly; and the disordered parts may, at the same time, be frequently rubbed with fresh nettles, or spirit of salvolatile. Bliffs and inatiom applied to the bruised parts will likewise be of use; and also warm bathing, especially in the natural hot-baths.

ANÆTHETUS, in Ornithology, a name which has been sometimes given to a species of tern found in Java, and described by Brown. This is Sterna solidis Limnius, which see.

ANÍA, or Dar Beyda, in Geography, a town of Africa, on the wellest coast of Morocco, situate in one of the most beautiful parts of the kingdom, formerly possessed by the Portuguefe, and populous, but now a heap of ruins; 30 miles south-south-west of Salé.

ANAGADA, an island in the West Indies, so low as to be almost covered with high tides. N. lat. 18° 38’. W. long. 64° 18’.

ANAGALLIDASTRUM, in Botany. See Centneculius.

ANAGALLIS, derived from anagá, to laugh, because, as it is said, by curing the spine it disposes person to be cheerful, a genus of the pentaadia monegynia clas and order, of the natural order of roaceae, and fijnicarea of Jussieu. Its characters are, that the calyx is a pentatium five-parted, sharp, and more permanent, and divisions keeled; the corolla is shelf-shaded, border five-parted, divisions ovate-orbicular, with the claws connected; the filament have erect filaments, shorter than the corolla, thrapture below, anthers simple; the pistil is a globoso cerme, blyle filiform, lightly bending, and stigma capitata; the pericarpium is a globoso, one-celled capsule, opening transversely; the seeds are very many and angular; the receptacle globoso, very large, (fangofo, alveolate, and free.) Martyn enumerates 5, Willdenow 6, and Gmelin 8 species. 1. A. arvensis, A. flore phaeniceo of Ray, and A. mas of Ger. common or scarlet pimpemel, with leaves univalent, stem procumbent, and corolla finely notched; or with stem procumbent, leaves ovate-lanceolate, and segments of the calyx pierced; or, according to Dr. Smith, with leaves ovate, punctate underneathe, and stem procumbent. Dr. Smith reckons three varieties, viz. B. A. phaenicea, folis amplioribus ex adverfo quaternis of Ray; γ. A. farinosa of Ray and Gerard. A. corolla of Abbot, blue pimpemel; and B. A. teresfria flore albo of Ray. The root is small; the stem procumbent, very branching at the base, tetragonous, smooth, and foliace; the leaves opposite, (those of B in a rich foil being four) fefile, ovate, entire, smooth, and underneathe dotted with purple; the peduncles auxiliary, solitary, one-flowered, longer than the leaves; the calyx the calyx lanceolate, acuminate, membranaceous at the margin; the corolla deeply quinquidact, minutely ciliato, softly scarlet, with a violet mouth; the filament hairy and violet; the anthers yellow; the stigma obtuse and crenate; the capsule globofoe and diaphanous, (marked with five lines as if the stems of so many valves, but always separating transversely into two parts, Withering); the seeds angular, and heaped together; the flowers in the variety γ are blue, but Dr. Smith has perceived scarcely any other difference. Dr. Withering observes, that every part of this plant is singularly beautiful; and will amply repay the trouble of a minute examination. It is an annual plant, frequent in ploughed grounds and gardens, particularly in sandy soils, and flowers in June and July. The variety γ, female or blue pimpemel, grows wild in Sweden, Germany, and Swizerland and is found between Stockwell and Camb-berwell, near London, near Mitcham in Surry, and Hilton in Cambridgeshire, on Brecon-hill, in corn-field at the top of Overbury-wood in Worcestershire, at Dawlish in Devon-
shire, and between Bath and Bradford. Ray, Linnaeus, and others, take the blue pimpernel to be only a variety of the red. Haller, after Blair and Bochmer, and followed by Al-
lioni and Gilmel, considers it as a distinct species; observing,
that it is a taller plant, with smaller leaves and larger flowers;
that the calyx is more ovate, but the divisions of the calyx
are narrower, and the petals ferrate about the edge. Haller
mentions a blue form, with three and four leaves together.
The variety has been found in Cowley field. The blossoms
of the male or common pimpernel open about eight in the
dawn, and close in the afternoon; and from this circum-
stance it is denominated the shepherd's, or poor man's wea-
ther-gale. But with rain, or much moisture in the air, the
flowers either do not open, or close up again. Small birds
are very fond of the seeds; swine and goats feed on it, but
their food is bad (in the Amene. Acad.) to refine it, whereas
Schreber says, that sheep eat it readily. It was formerly
celebrated for its medicinal qualities, and given in maicael
cafe, and in the hydrophobia. It is now fallen into difufe,
thougl Lewis observes, that it is not wholly deftitute of me-
cinial powers; as the expressed juice of the leaves, on
being defperated by fettling, and then infpiffiated to the con-
fluence of an extract, affed the organs of fafe with a pung
famine afility; and therefore thofe herbs have some
claim to the refolvent and deftergent virtues ascribed to them
by fome writers, though neither a decotion, nor tincture
of them, nor their juice in its dilute state, and much lefs
their defilited water, can exert thofe virtues in any confiderable
degree. Murray has cited several cafes, adduced by Gelm, 
which favour the efficacy of the anagalis as an antidote to
the bite of mad animals. It has also been recommended as
affording relief in cancerous complaints. 2. A. monelli, upright
pimpernel, with leaves undivided, and erect stem. This is a
very beautiful, small plant, and produces a great number of
fine blue flowers in April and May. It is a native of Verona,
and cultivated in 1645 in the Oxford garden. 3. A. latifolium,
broadd-leaved P., with leaves heart-shaped, stem-clawing,
and stem comprifed. This is nearly allied to the firft species,
but diftinguished by its large broad leaves and comprifed
stem. It was fent to Mrs. Miller in 1750 from Spain, and
is a trailing annual plant. 4. A. linefolia, hair-leaved P., with
leaves linear, and stem erect. A native of Spain and Portu-
gal. 5. A. tenella, lyminocha tenella of Sp. Pl. Hudson,
Miller, and Dickfon; nummularia minor, bur purpurea
cent of Ray, Gerard, and Parkinson, bog P. or purple-flowed
fooe-flitre, or money-wort, with leaves oval and sharpish,
and creeping stem. This has the habits of lyminocha, the
corolla almost of cæruculins, but the stamina and froot of
the anagallus. It is not uncommon on wet heaths and turp
bogs in France, Italy, and England, in Suffolk and Stafford-
shire, is perennial, and flowers in July and Augulf. 6. A.
verticillata, verticilled P. with stem-leaves verticilled, and
stem erect. 7. A. pumila, dwarf P. with stem erect, and
leaves roundish, acute and fefile. It is annual and a native
of Jamaica in the high mountains and marufes.

Culture. — The four firft sorts being annual, are propagated
from seeds which should be foon fown after they are ripe. The
firft, though beautiful, is a common weed, and never culti-
ved except in botanic gardens. The second, third, and
fourth require being kepted from extreme cold. The fifth
is a bog-plant, and cannot be cultivated in gardens, but will
flourith well enough in pots of bog-earth plunged in water.
The sixth, if it be a different species, has not yet been cul-
tivated with us. Martyn's Miller. Smith's Flor. Brit. Wil-
denow. Gmelin's Linn.

Anagallis. See Centunculus, Evolvulus, Ly-
mincha, and Pedelota.

Anagallis Aquatica. See Graziola, Montia, Pe-
plis, Samolus, and Veronica.

Anagallis Cornulus. See Graziola.

Anaglyphia, in Ancient Writers, denote vefts, or
other things adorned with sculpture in buffa reliefo; and
hence the anaglyphic art is the art of carving, chafing, en-
graving, or imbiffed plate.

Anaglyphicus, or Anaglyphis, denotes that
species of sculpture wherein the trokes or figures are pro-
minent, or imbiffed; and is contradiftinguished from diagly-
phic, where the trokes are in lented.

The word comes from the Greek αναγλύφω, exculpo.

Anagnia, in Ancient Geography, a town of Italy, in
Laetium, south of Praenelle, the capital of the Hernici;
diftinguished among the ancients by the appellation of rich,
noble, and illustrious. It submitted, after a feeble refiftance,
to the Romans, and obtained the freedom of the city. It
was afterward by Drufus Cesar wall ed round, and its terri-
ory affigned to the veterans. It is now Anagni, about
thirty-six miles caile from Rome. N. lat. 42° 48'. E. long.
13° 45'.

Anagnoses, or Anagnismata, from aυς and γνωσεως, I know, in the Greek Church, denotes an ecclesiasti-
chal book, containing the lefions read at divine service in the
feveral fells, &c. of the year.

Anagnosta, or Anagnostes, among the An-
cients, denotes a kind of fervant retained in the families of
perfons of rank to read to them at meals.

These are called by the Greeks anagnosma, and by the Ro-
mans lectores; sometimes also a ludus.

Even private families who lived in any degree politely,
were not without this kind of literary fervants. Servius
makes mention of a female anagnosma, under the denomina-
tion of lectrix. Sometimes the matter himself performed the office
of reader. The emperor Severus himself read at table. Ma-
tial mentions one Ligurinus, who read his own poems at
inner to the great dignit of the guests.

Among the Greeks there were also anagnosai in their
theatres for public reading of the poets.

Some speec of the anagnosma, as a species of acroama,
from which, however, in propriety, they differed.

Cornelius Nepos relates of Atticus, that no acroama was
ever heard at his meals, but an anagnosma. He never supped
without reading, fo that the minds of his guests were not les
agreeably entertained than their appetites. The fame cuftom,
Eginhard oberves, was kept up by Charlemagne, who attable
had the histories and acts of ancient kings read to him. This
cuftom ceems to have been a reliche of that of the ancient
Greeks, who had the prajies of great men and heroes fung
to them, while at table. The ancient monks and clergy
kept up the like ufage, as we are informed by St. Au-
gulin. Sidonius praiies a man of quality in his time,
who, in this refpeet, lived a clerical life, though he was no
priest.

Bilbergius, and Th. Raynau, have difcussions expros
on anagnostes.

Anagnostes, John, in Biography, a Byzantine historian,
flourished in the reign of the emperor John Palaeologus,
and was prefent in Thessalonica in the year 1450, when that city
was besieged by Sultan Morad, and reduced under the Turk-
ish yoke. As he relates events that occurred two or three
years after that fiece, he much have lived at least to the year
1453. His work "De rebus Confiolantinopolitarum Ma-
deconicis," records the particulars of the fiece of Thessalo-
nica and its surrender to the Turks. This history was pub-
lished in Greek, with a Latin translation, by Allattius in 8vo,
at Cologne. A. D. 1653.

Anagnostic.
ANAGNOSTIC, in Middle Age Writers, is sometimes used for an epistle, or other writing.

ANAGOGIA, in Antiquity, solemn sacrifices to Venus at Ephes, in Asia, where she was honoured with a magnificent temple.

The name of this solemnity was derived, ανάγωγος, τό, ς, i.e. from returning; because the goddess was laid to rest in Asia, and returned to Africa at that time.

ANAGOGICAL, transplanting, something that raises the mind to things eternal and divine; the great objects of the next life.

The term is principally used in speaking of the diverse senses of Scripture. — The literal sense is the first, and natural sense: the mystical sense is founded on the natural sense, from whence it is taken by analogy or comparison, by similitude or resemblance of one thing to another; and is divided into several kinds.

Where it regards the church, and matters of religion, it is called the allegorical sense. Where it regards our morals, it is called the topographical sense; and where it regards eternity, or the life to come, it is called the apocalyptic sense.

ANAGOGY, ANALOGY, a rapture or elevation of the soul, to things celestial and eternal.

Anagogy, in a more particular sense, denotes the application of types and allegories of the Old Testament to subjects of the New; thus called, because the veil being here drawn, what before was hidden is exposed to open sight.

Some of the fathers place αναγωγή in opposition to ἀνακρίνεια.

Anagogy, in Medicine, denotes a return of humours, or the rejection of matter upwards, or by the mouth.

Anagogy amounts to the same with what is otherwise called anabol.

NAGOGY, αναγωγή, in Ancient History, denotes a loose education or discipline.

ANAGOMIRI, in Ancient Geography, mountains of Africa, placed by Ptolemy in Maramara. M. d'Avville places them west of the temple of Ammon.

ANAGRAM, ANAGRAMMA, formed from ανα, backwards, and γραμμα, letter, a transposal of the letters of a name, with a combination thereof in some new manner, so as to exhibit one or more words, either to the advantage or disadvantage of the person to whom it belongs.

Thus the anagram of Galenus is ἀγαλές; that of Logica, καλίγα; that of Alcides, χιλίατης; that of Edmondus Godfrey, I find murdered by rogues; or by Rome's rude finger die; that of Loraine, is alerion, on which account it was, that the family of Loraine took alerions for their arms. — Calvin, in the title of his Institutes, printed at Strasburg in 1539, calls himself Alcuminus, which is the anagram of Calvinus, and the name of an eminently learned person in the time of Charlemagne, who contributed greatly to the reformation of learning in that age. Barclay, in his Argenis, anagrammatizes Calvinus by a leaf creditable name Ufudata; and Rabelais, to be revered of the name Calvin, who had made an anagram of his name, found in that of Calvin, Jan. Col.

Such as keep close to the definition of anagram take the liberty to omit or retain the letter H, and that letter only; but such as stand up for the poetical licence, may hold sometimes to use E for Ε, V for W, S for Z, and C for K; and vice versa.

This way of writing was fearcply known among the ancients: Daurat, a French poet in the reign of Charles IX.
the keel. Martyn enumerates three species, which are hardy deciduous flowering shrubs. 1. *A. fàsitilis*, rhubarb bean trefoil, with leaves ovate and flowers axillary. This is the only species mentioned by Gmelin in his edition of the Linnaean System, and also by Willdenow. It grows wild in the South of France, Spain, Italy, and Sicily, and also about Smyrna. It rises to the height of eight or ten feet, and produces its flowers in April and May; they are of a bright yellow colour, growing in spikes, somewhat like those of the laburnum; the seeds are never perfected in this country, and therefore it is scarce in England; it was cultivated in 1750 by Mr. Hugh Morgan. 2. *A. cîria*, with leaves oblong, and racemes longer. This is a native of Can- dia, and some of the islands of the Archipelago, and is at present very rare in English gardens; it has longer leaves than the former, and flowers later in the Summer, so that it never produces seeds; and it is probably only a variety. 3. *A. inoîora*, with leaves pinnate, calyxes inflated and col-oured, legumes compressed and straight, racemes terminating and oblong. This is equal to a middle sized tree, with branches hanging down, and frequently fecond; leaves unequally pinnate, leaflets oblong, acuminate, smooth, and without smell; flower white; a native of the woods of Cochin-China. It is doubted whether Loureiro's anagryris foetida, found wild near Canton, in China, be the same with our European one.

**Culture.**—These plants may be propagated by layering down their tender branches in the Spring, thusing them in the same manner as the layers of carnations, and watering them in dry weather. By this management the layers will take root by the following Spring, and should be cut off from the old plants before they begin to put out their leaves, and planted in a warm situation.

If the plants are propagated from seeds, they will be much handier, and rise to a greater height. For this purpose the seeds should be sown in a moderate hot-bed in the begin- ning of March, or in a border of good rich earth, in a well-sheltered place, sitting over them about half an inch of fine mould, and covering them with a common frame, in order to protect them in severe weather. When the seeds are good, the plants will appear in a month after the seeds are sown; they should then be thinned out, and set in the open air, and removed into a sheltered situation towards the end of May. With this view the seeds may be sown in pots, and plunged in a hot-bed, because the plants will not bear transplant- ing till the following Spring; and it will be proper, during the two first Winters, to shelter them under a common frame, the glasses of which may be drawn off every day in mid land weather, that the plants may be thus prepared for being planted abroad, when they have acquired proper strength. They should be kept in pots for three years, and they will then be fit for removal to the places where they are to remain; the best time for which is about the beginning of April, just before they begin to put out new leaves. At this time they should be turned out of the pots with good balls of earth to their roots; and some of them may be planted against walls with warm aspects, so as to be secure from the frost; and others in warm situations, where by covering the surface of the ground about their roots with tanners bark in severe winters, and screening their heads with mats, they may be preserved for several years. In the fourth year from sowing these plants will begin to produce their flowers, and will con- tinue flowering every year, and they will be proper for intermixing with other flowering shrubs of the same growth in warm situations. Martyn's Miller.

**Anagryris.** See Cytisus laburnum.

**Anagryris, or Anagyrus; in Ancient Geography, a dif-
trict of Attica, in the tribe of Erechtheis, between Phalerus and the promontory of Sounion, to the call of Aëxoma. Some derive the name from a hero called Anagryus, who over- threw the houces in this district, because the inhabitants had destroyed a chapel that had been dedicated to him. Others say, that its appellation was derived from the feftid plant called Anagryis, which grew here, and which had the property of yielding a stronger smell the more it was handled; and hence arose the proverb, *Commoere Anagryis, or Anagy-
rum*, to bring a misfortune upon one's self.

**ANAHARATH,** a town of Judah, in the tribe of Issa-

**ANAITA,** a district of Asia in Armenia, situate upon the Euphrates. It is said to have derived its name from the goddes Anaitis, to whom the Armenians rendered peculiar worship. The Anaitic lake, mentioned by Pliny, was situate near this place, of which he says, that the bell reeds which were used in writing grew upon its banks.

**ANAPHTIS,** called also Tanais, in Ancient Mythology, a goddes held in great veneration by the Armenians. Strabo (lib. xi. tom. 2. p. 805) says, that the Armenians principally worshippd this goddes, and that the most illustrious per- sons of the nation dedicated their virgin daughters to her, who, after having been for a long time prostituted in her service, were given in marriage; none disdaining to marry them, but rather wishing it as an honor to be thus allied to them. Pliny (lib. xxxiii.) informs us, that when the temple of this goddes at Acilene was plundered by the Romans, under Marc Au- tory, her statue of maffy gold was carried off, and broken to pieces. A report prevailed, that the first man who presumed to touch the goddes, was struck with an apoplexy, and instantly fell down dead. Augustus, being at Bologna a long time after this event, and supposing with an old soldier who had shared the plunder, questioned him concerning the truth of the fact, and the soldier replied, "Czar, it is the god-
des Anaitis's leg you are now cutting for fupper, and all I have in the world I owe to her."

**ANK, in Scripture History,** the father of the Anakims, was the son of Arba, who gave his name to Kirjath-Arba, of Hebron. Josh. xiv. 15. Anak had three sons (Josh. xv. 14.) Shihibai, Ahiman, and Talmai, who, as well as their father, were deemed giants; and they with their posterity were denounced Anakims, and reputed as a fierce and warlike people, and also of extraordinary stature. To this purpose the Hebrews, who were sent to view the land of Canaan, returned with a report, that they found there the giants, the sons of Anak, in comparison of whom they were both, in their own light, and all in that of the Anakims, as grasshoppers. Numb. xiii. 33. When the city of Arba, the father of Anak, was allotted to Caleb, in the distri- bution of Canaan, he drove out the Anakims about A.M. 2550. Josh. xv. 13—15.

**ANALATIVA,** in Geography, a small island near the north-west point of the island of Ceylon.

**Analecta, in Antiquity,** the fragments, or offals of meat, which dropped from the table on the ground.

**Analecta** was also used for a servant appointed to gather up the offals of the tables.

In this sense the word is sometimes also written analecta. Satellius Quadratus, in the way of derision, advised Calvi- nius Sabinus, a man of great wealth, and much affection of learning, but with little memory, and lefs genius, to keep analecta, ut grammaticos habetur analectae; a phrase which has occasioned much dispute among critics and antiquarians.

**Analectis** is likewise, in a literary sense, used for a collec- tion of small pieces or compositions.

The word is formed of *analete,* to gather.

**ANALEMMA,**
ANALEMMA, in Mathematics, derived from αναλήμμα, transl. I take backwards, a plane, or projection of the sphere, on the plane of the meridian, orthographically made, by perpendiculars from every point of that plane, the eye being supposed to be at an infinite distance, and is the ca't or well point of the horizon. In this projection, the polar coördinates, and all its parallels, are projected into concentric circles, equal to the real circles of the sphere; and all circles whose planes pass through the eye, as the horizon and its parallels, are projected into right lines equal to their diameters; but all oblique circles are projected into ellipses, having the diameter of the circle for the transverse axis respectively.

The analemma was invented by John de Royas, a Spaniard. The advantages of this above the astrolabes of Ptolomy and Gemma Frisius, are, that all the lines proceeding from the eye are parallel to each other, and perpendicular to the plane of projection; consequently not only the equator is a right line, as in the astrolabe of Gemma Frisius, but all the parallels to the equator are so too; since, in virtue of the infinite distance of the eye, they are all in the same plane, as if their plane passed through the eye: for the like reason, the horizon and its parallels are also right lines. On the other hand, whereas in the two former astrolabes the degrees of circles converted into right lines become very small towards the centre, and large towards the circumference, they become here small towards the circumference, and large towards the centre: so that their figures will be no less altered in this than in the others. Add, that most of the circles here degenerate into ellipses, which are often difficult to describe. See Orthographic Projection.

ANALEMMA is also used for a gnomon or astrolab, consisting of the furniture of the same projection, drawn on a plate of brass, or wood; with an horizon, or meridian, fitted to it.

Its use is for finding the time of the sun's rising and setting, the length of the longest day in any latitude, and the hour of the day. The analemma is also of considerable use among Dialists, for laying down the signs of the zodiac, with the length of the days, with other matters of furniture, upon dials.

The most accurate treatise on the analemma now extant, was written by Ptolomy, and printed at Rome in 1562, with a commentary by F. Commandine. Since that time many authors, as Agullonius, Laquet, Dechales, Witty, &c. have written on the same subject.

ANALEPSIS, the restoration of a body wasted by disease, by the use of a nutritive diet.

ANALEPSIS is also used for the method of hanging a broken or dislocated member, especially the hand, in a sling. This operation to the arm is called analepseis; to the foot, tethis.

ANALEPTICS, derived of αναλεπτικά, in Medicine, restoratives; or remedies proper to reconstitute the body, when wasted or emaciated, either by the continuance of a disease, or by want of food.

This term is sometimes applied to stimulants, but more commonly to those substances which supply a deficient nourishment. As a term, however, says Dr. Cullen (Med. Med. vol. 1. p. 166), attended with some ambiguity, it should not be employed at all.

ANALIS, a specific name that occurs in several genera, both in the Linnean and Fabrician arrangement of Entomology.

ANALIS, a species of SCARABAEUS. It is black, with three equal tubercles on the head: ends of the wing ca³ses ferruginous-brown. Fabricius. Inhabits India.
which feline animal is analogous to man and brute.—Of attribution; where, though the reason of the common name be the same, there is a difference in its multitude or refeft thereto: in which feline healthy is analogous both to a man and an exercise. Of proportionality; where, though the reasons of the common name do really differ, yet they bear some proportion to each other. In this feline, the gills of fishes are laid to be analogous to the lungs in terrestrial animals; and thus the eye and the understanding are laid to bear an analogy to each other.

Reasoning by analogy may serve to explain and illustrate, but not to prove anything; and yet a great part of our philosophizing has no better foundation.

From a few data, a few points known and allowed, we reason by analogy, and deduce a number of others. It is thus that most branches of knowledge are extended to their present dimensions. There are but few things actually observed, few experiments made; and all the observations and experiments we have are only singular. Such an effect was found from such an individual body, under such and such circumstances. We infer, that what has been observed of one body under such circumstances, will, from the analogy and uniformity in the works of the Creator, equally hold in all other bodies of the same species under like circumstances. Thus, without having recourse to experience, we never hesitate to conclude, that the fruit of trees of the same species will have the same taste and properties. This has many times drawn us into great errors; it continues every day to lead us into new ones, and may be laid to be the source of most of the mistakes committed in pursuit of science. But nevertheless, while mankind extend their thoughts toward unknown and inaccessible objects, they have no other guide to direct their researches but the supposed correspondence between the objects they are acquainted with, and those which are the subjects of their investigation.

The analogy between the three kingdoms of plants, animals and minerals, has been the source of a variety of discoveries, either real or imaginary: hence it is we have learnt, that stones vegetate; that plants breathe; that the sap circulates in them; that generation is performed by eggs in the human kind; that the planets have their atmospheres, their inhabitants, their trees, their seas, &c. Indeed, if we will follow whither analogy, real or imaginary, will lead us, there is no end of science.

As to divine and supernatural matters, it is affecting we know nothing of them but by analogy; that is, by the meditation and application of these ideas we have of ourselves and other natural beings. Our ideas of God himself arise from this principle; we have no direct and immediate perception of him. The knowledge we have of the Supreme Being is only an observation of his works, and a reflection of the mind, which flows what power, wisdom, &c. appear necessary to enable him to produce them. Having no proper ideas of his perfections, we give them the names of those faculties of men, which we judge necessary.

It is natural to men (says Dr. Reid, in his Essays on the Intellectual Powers of Man, Eff. i. ch. iv. p. 52, &c.) to judge of things left known, by some similitude they observe, or think they observe, between them, and things more familiar or better known. In many cases we have no better way of judging; and where the things compared have really a great similitude in their nature, when there is reason to think that they are subject to the same laws, there may be a considerable degree of probability in conclusions drawn from analogy. Thus, we may observe a very great similitude between this earth which we inhabit, and the other planets. They all revolve round the sun, as the earth does, although at different distances, and in different periods. They borrow all their light from the sun, as the earth does. Several of them are known to revolve round their axes, and, by that means, must have a like succession of day and night. Some of them have moons, that serve to give them light in the absence of the sun, as our moon does to us. They are all, in their motion, subject to the law of gravitation as the earth is. From all this similitude it is not unreasonable to think, that these planets may, like our earth, be the habitation of various orders of living creatures. There is some probability in this conclusion from analogy. In medicine, phyists must, for the most part, be directed in their preceptions by analogy. The constitution of one human body is so like to that of another, that it is reasonable to think, that what is the cause of health or sickness to one, may have the same effect upon another. And this generally is found true, though not without some exceptions. In politics, we reason, for the most part, from analogy. The constitution of human nature is so similar in different societies or commonwealths, that the causes of peace and war, of tranquility and faction, of riches and poverty, of improvement and degeneracy, are much the same in all.

Analogy, reasoning, therefore, is not, in all cases, to be rejected. It may afford a greater or a less degree of probability, according as the things compared are more or less familiar in their nature. But it ought to be observed, that this kind of reasoning can afford only probable evidence at least, so unintellectual caution be used, we are apt to be led by it. For men are naturally disposed to conceive a greater similitude in things than there really is. E. G. Anatomists, in ancient ages, seldom dissected human bodies, but very often the bodies of those quadrupeds, whose internal structure was thought to approach nearest to that of the human body. Modern anatomists have discovered many mistakes into which the ancients were led by their conceiving a greater similitude between the structure of man and of some beast than there is in reality. By this, and many other instances that might be given, it appears, that conclusions built on analogy stand on a slippery foundation; and that we ought never to rest upon evidence of this kind when we can have more direct evidence.

Analogy reasoning may be of excellent use in answering objections against truths which have other evidence. It may likewise give a greater or a less degree of probability in cases where we can find no other evidence. But all arguments, drawn from analogy, are still the weaker, the greater disparity there is between the things compared; and, therefore, must be the weakest of all when we compare body with mind, because there are no two things in nature more unlike. There is no subject in which men have always been so prone to form their notions by analogies of this kind as in what relates to the mind. We form an early acquaintance with material things by means of our senses, and are bred up in a constant familiarity with them. Hence we are apt to measure all things by them, and to ascribe to things most remote from matter the qualities that belong to material things. It is for this reason that mankind have, in all ages, been so prone to conceive the mind itself to be some subtle kind of matter, that they have been disposed to ascribe human figure, and human organs, not only to angels, but even to the Deity. Though we are conscious of the operations of our own minds when they are exerted, and are capable of attending to them so as to form a distinct notion of them; this is too difficult a work to men, whose attention is continually solicited by external objects, that we give them names from things that are familiar, and which are conceived to have some similitude to them; and the notions we form of them are no less analogy.
the names we give them. Almost all the words, by which we express the operations of the mind, are borrowed from material objects. To understand, to conceive, to imagine, to comprehend, to deliberate, to infer, and many others, are words of this kind: so that the very language of mankind, with regard to the operations of our mind, is analogical. Because bodies are affected only by contact and prehension, we are apt to conceive, that what is an immediate object of thought, and affects the mind, must be in contact with it, and make some impression upon it. When we imagine any thing, the very word leads us to think that there must be some image in the mind of the thing conceived. It is evident that these notions are drawn from some similitude conceived between body and mind, and between the properties of body and the operations of mind. The influence of analogical reasoning from a suppos'd similitude of mind to body as a fruitful cause of error, with regard to our mental operations, may be illustrated by the following instance. When a man is urged by contrary motions, the one, on one hand, inviting him to do some action, the other, on the other side, forbidding it, he deliberates about it, and at last resolves to do it, or not to do it. The contrary motives are here compared to the weights in the opposite scales of a balance; and there is not perhaps any instance that can be named of a more striking similitude between body and mind. Hence the phrasing of weighing motives, of deliberating upon actions, are common to all languages. From this analogy some philosophers draw very important conclusions. They say, that as the balance cannot incline to one side more than the other, when the opposite weights are equal, so a man cannot possibly determine himself if the motives on both hands are equal; and as the balance must necessarily turn to that side which has most weight, so the man must necessarily be determined to that hand where the motive is strongest. On this foundation some of the scholastics maintained, that if a hungry as were placed between two bundles of hay equally inviting, the beast must stand still and starve to death, being unable to turn to either, because there are equal motives to both. This is an instance of that analogical reasoning that ought never to be trusted: for the analogy between a balance and a man deliberating, though one of the strongest that can be found between matter and mind, is too weak to support any argument. A piece of dead, inactive matter, and an active intelligent being, are things very unlike; and because the one would remain at rest in a certain cafe, it does not follow that the other would be inactive in a cafe somewhat similar. The argument is no better than this, that because a dead animal moves only as it is pushed, and, if pushed with equal force in contrary directions, must remain at rest; therefore the same thing must happen to a living animal; for surely the similitude between a dead animal and a living one, is as great as that between a balance and a man.

No author has made a more just and a more happy use of the analogical mode of reasoning than Bishop Butler, in his admirable treatise, entitled, “The Analogy of Religion, natural and revealed, to the Constitution and Course of Nature.” Instead of indulging in idle speculations how the world might possibly have been better than it is, or forgetful of the difference between hypothesis and fact, attempting to explain the divine economy with respect to intelligent creatures from preconceived notions of his own, this excellent writer first inquires, what the constitution of nature, as made known to us in the way of experiunt, actually is; and from this, now seen and acknowledged, he endeavours to form a judgment of that larger constitution, which religion discovers to us. If the dispensation of Providence which we are now under, considered as inhabitants of this world, and having a temporal interest to secure in it, be found, upon examination, to be analogous to, and of a piece with, that further dispensation, which relates to us as destined for another world, in which we have an eternal interest depending on our behaviour here, if both may be traced up to the same general laws, and appear to be carried on according to the same plan of administration; the fair presumption is, that both proceed from one and the same Author. And if the principal parts objected to in this latter dispensation be similar to, and of the same kind with what we certainly experience under the former, the objections, being clearly inconclusive in one case, because contradicted by plain fact, must, in all reason, be allowed to be inconclusive also in the other. This way of arguing from what is acknowledged to what is disputed, from things known to other things that resemble them, from that part of the divine establishment which is exposed to our view to that more important one which lies beyond it, is, on all hands, confessed to be just. By this method Sir Isaac Newton has unfolded the system of nature; and by the same method Bishop Butler has explained the system of grace, and, as Mr. Mainwaring (in the disputation prefixed to his volume of sermons, p. 123) expresses it, “formed and concluded a happy alliance between faith and philosophy.” Although the argument from analogy be allowed to be imperfect, and by no means sufficient to solve all difficulties respecting the government of God, and the designs of his providence with regard to mankind; yet surely it is of importance to learn from it, that the natural and moral worlds are intimately connected, and parts of one dependant whole or system; and that the chief objections which are brought against religion, may be urged with equal force against the constitution and course of nature, where they are certainly false in fact. This information we derive from the bishop’s work; the proper design of which is not to prove the truth of religion, either natural or revealed, but to confirm that proof, already known, by considerations deduced from analogy; and to answer objections against those truths, which are established upon their proper evidence. When objections are made against the truths of religion, which may be made with equal strength against what we know to be true in the course of nature, such objections can have no weight. The ingenious author has prefixed the following summary of the contents and plan of his work, which we shall here transcribe for the information of those readers who may be desirous of pursuing the investigation of subjects of this nature. “The divine government of the world, implied in the notion of religion in general, and of Christianity, contains in it—that mankind is appointed to live in a future state—that there every one shall be rewarded or punished; rewarded or punished respectively for all that behaviour here, which we comprehend under the words, virtuous or vicious, morally good or evil—that our present life is a probation, a state of trial, and of discipline, for that future one; notwithstanding the objections which men may fancy they have, from notions of necessity, against there being any such moral law as this at all; and whatever objections may appear to be against the wisdom and goodness of it, as it stands to imperfectly made known to us at present—that this world being a state of apoloagy and wickedness, and consequently of ruin; and the fene both of their condition and duty, being greatly corrupted amongst men, this gave occasion for an additional dispensation of Providence, of the utmost importance; proved by miracles; but containing in it many things appearing to us strange, and not to have been expected; a dispensation of Providence, which is a scheme or system of things, carried
or, analogy may be considered as a general or established usage, applied in similar cases to certain words, phrasing, or constructions not yet established. Or, analogy is only a particular usage, which, in certain cases, is inferred from a general usage already established.

Grammarians are divided into two parties. Some, with Sancius, contend, that the analogy or reason rules through all the parts, all the phrases and divisions of the Latin tongue. On the contrary, others, with Perizonius, assert, that there are many phrases, contrary to analogy and reason, derived all originally from the populace. Such, e. g. are, Nemo, homo, deorsum, vero, &c.

Varro and Caesar wrote expressly on the analogy of Latin words, but their works are now lost. Jac. Operarius has endeavored to supply that loss, by tracing the analogy of 20,000 Latin words. Tab. Bib. Lat. lib. i. cap. 10.

Analogies of conjugation, analogiae conjugationis, is not only when a verb is conjugated like another, but agrees with it in the quantity of the syllables.

Thus cherno is conjugated like ano, and clamabam pronounced like amabam.

Analogies of declension, analogiae declinationis, is not only when a noun, pronoun, or participle is declined like another, but agrees with it in respect of the quantities of the syllables.

Thus, e. g. mater is declined like pater, solans as amans, fons as trnus. So penamnur is pronounced as menamnur, and funeris as munemv.

Analogies of doctrine, among Critics, is one of the great rules to which regard is to be had in the interpretation of authors.

We are first to learn from the author himself the general system which he follows; and as no writer is to be easily supposed to contradict himself, our interpretation is to be so conducted, as that nothing be admitted which is contrary to, or tends to overthrow this system.

Thus, in interpreting an author who follows the Platonic scheme, we are to prefer a sense which is consistent with the Platonic doctrine to another which is contrary to it, unless there be some evident proof, that the author contradicts himself, or affects things which are inconsistent.

Analogies, in Rhetoric. See Comparison.

Analogies of faith, among Divines, denotes that relation which the several articles of faith bear to each other.

Analogies of faith stands opposed to tradition and authority, which is the great rule of interpretation among catholics. By this it is required, that whether we interpret Scripture, or explain the doctrines of Christianity, all our positions and explanations be consistent with the analogy of our faith, and those evident propositions deduced from Scripture.

Tortschius, Antonius, Tranckius, &c. have written expressly on the analogy of faith.

Analogies, in Medicine, is a certain relation or resemblance between diseases, in virtue whereof, we may reason and conclude from one to another, and treat them all much in the same manner: e. g. pleurisy being a species of inflammation, produced like inflammations of other parts, is to be treated like them, relaxing the foids, which are too much stretched, and giving free passage for the humours.

This method of deduction was called by the ancients medicina rationalis, or dogmatica, in opposition to the empirics, called also epilogism, which was conducted by appearances only without theory.

Analysis, derived from analyso, to resolve, in a general sense, the resolution of something compounded into its constituent parts.
The whole of the practical and experimental part of chemical science may be properly included under the art of analysis; a complete account of this, therefore, would require the enumeration of almost every known fact in chemistry; and the inferences and general deductions from these facts would comprehend all that is valuable in the philosophy of chemistry. To treat the subject thus fully would, however, be inconsistent with the plan of this work, and would be little satisfactory to the reader, except such a system of arrangement was adopted, as would admit of reference to any particular part without the necessity of confuting the rest. For these reasons we have thought it upon the whole most convenient to subdivide all that relates to the subject of analysis in the following manner.

For the general method of analysing animal matters, see Animal matter; of vegetable matter, see Vegetable matter; of minerals in general, see Mineral analysis; of mineral waters, see Waters, mineral.

The analysis of metallic ores will be treated of generally under Ore, and particularly under each metal.

Analysis, grammatical, is that employed about words, their etymons, homonyms, or various acceptations, synonyms, contractions, ufs, and the like.

Pafur has given a grammatical analysis of the difficult words in Heliac, &c. Sturmns has published a method of making the analysis of Latin words.

Analysis, in Logic, is a method of applying the rules of reasoning to resolve a discourse into its principles, in order to a discovery of its truth or falseness. Or it is an examination of such discourses, propositions, or other matters, by searching into their principles, and separating and opening its parts, in order to consider them more distinctly, and arrive at a more precise knowledge of the whole.

Analysis makes one great branch or species of method; and as it resolves a complex idea into its component principles, it is called also resolution. It is particularly used for the reduction of an imperfect syllogism to a perfect one. This is otherwise called reduction.

The order of the syllogism is contrary to that of the analysis, one beginning where the other ends. The two methods cannot always be used indifferently; the analysis is most proper for the discovery of truth, and synthesis for teaching and explaining it in a syllogistical way. Hence some call analysis the method of invention. See Method.

Analysis of ideas, that whereby an idea is resolved into the ideas of its ingredients, and the ideas of these again into simple ones, till at length we arrive at the most simple.

Analysis, in Mathematics, is proper the method of resolving mathematical problems, by reducing them into equations; and may be divided into ancient and modern.

The moderns are at some loss concerning the ancient analysis, i.e., concerning the art and method whereby the ancients resolved problems, and invented theorems. Some traces of their method are extant in Pappus, Apollonins, and Euclid; and Dr. Hooke suspects, that their analyses went backwards through almost all the same steps by which their demonstrations went forwards.

That this might often be the case, seems evident to any one who has studied Euclid with care. They have indeed left us no precepts of their art. This, like almost all others, must be acquired by imitation, and the excellent examples left us by the Greeks. Men of genius among the moderns, who had studied the works of the ancient geometers, have been thereby enabled to imitate them, and penetrate into their methods: the works of Huygens and Newton, and also the treatise of Conic Sections by Mr. Simpson; profes-

for of mathematics in the university of Glasgow; as also several parts of Mr. Maclaurin's Treatise on Fluxions, are evident proofs of this. Weigelius has endeavoured to retrieve the ancient analysis of Archimedes, from Euclid and other ancient geometers.

The ancient analysis, as Pappus has described it in his "Mathematicae Collectiones," lib. vi. p. 157, ed. Commandini, Paris. 1588, is the method of proceeding from the thing sought for granted, through its consequences, to something that is really granted or known; in which sense it is the reverse of synthesis or composition, that commences with the last step of the analysis, and traces the several steps backward, making that in this case antecedent, which in the other was consequent, till we arrive at the thing sought, which was assumed in the first step of the analysis. The principal authors on the ancient analysis, enumerated by Pappus (ibid supra) are Euclid in his "Data," "Porismata," and "De Locis ad Superficiem;" Apollonius, "De Sectione Rationis," "De Sectione Spatii," "De Tactionibus," "De Inclinationibus," "De Locis Planis," and "De Conicis;" Arithmus, "De Locis Solidis;" and Eutodokhes, "De Medias Proporcionem." Pappus himself, who has given many examples from the preceding writers, may be added to the above number. This analysis has also been cultivated by many of the moderns, as Fermat, Viviani, Chevalier, Snellius, Huygens, Simson, Stewart, Law. &c, and particularly by Hugo d'Omerique, in his "Analytica Geometrica," in which he has endeavoured to restore the analysis of the ancients. Sir Isaac Newton, as we are informed by Dr. Pemberton, ("View of Sir Isaac Newton's Philosophy," preface,) always professed himself a great admirer of the ancients, and even confounded himself for not following them more closely than he did. He also regretted his mistake at the beginning of his mathematical studies, in applying himself to the works of Des Cartes and other algebraic writers, before he had considered the Elements of Euclid with that attention which so excellent a writer deserves. He used to commend the laudable attempt of Hugo d'Omerique to restore the ancient analysis; and very much esteemed Apollonius's book, "De Sectione Rationis," for giving us a clearer notion of that analysis than we had before; and he particularly recommended Huygens's rule and manner. In the application of the ancient analysis for the solution of geometrical problems, strict rules cannot be laid down, nor any previous instructions be delivered, from which it may not be necessary to deviate. Some preparation is necessary in order to form a connection between the data and quæstia, which must be suggested to the mind of the analyst by a due consideration of the nature of the problem; and the skill of the analyst was manifested in discovering the most proper preceding operations, on which his analysis was to be founded. As an example we may give the 15th proposition of the 7th book of Pappus, p. 257. From the extremes of the base A and B (Plate 1. Geometry, fig. 14.) of a given segment of a circle, let it be required to draw two lines AC, BC, meeting at a point C in the circumference, which shall have to each other the given ratio of F to G. Pappus resolves this problem in the following manner: Analysis. Suppose the thing done, or that the point C is found: and draw CD a tangent to the circle. If then meeting AB produced in D. By the hypothesis AC : BC :: F : G, and AC : BC : DB ; DA : DB; which may be thus proved. DC touches the circle, and BC cuts it; and therefore by Euclid, lib. iii. prop. 35, the angle BCD = BAC, and the angle D being common to both the triangles DCA and DCB, these triangles will be similar; and consequently DA : DC :: DA : DB; and consequently DA : DC :: DA : DB. Moreover, DA : AC ::
Sir Isaac Newton, indeed, who well knew the advantages of analysis in geometry and other sciences, frequently lamented, that the study of the ancient geometry should be neglected and abandoned; and it must be allowed that the method employed by the ancients in their geometrical writings is more rigorous than that of the modern analysis; and though it be greatly inferior to that of the moderns, in point of dispatch, and facility of invention, it is nevertheless highly useful in strengthening the mind, improving the reasoning faculties, and accommodating the young mathematician to a pure, clear, and accurate mode of investigation and demonstration, though by a long and labourd process, to which he would reluctantly have submitted, if his talent had been vitiated, as it were, by the modern analysis. On this circumstance were principally founded the complaints of Newton, who feared, left by the too early and frequent use of the modern analysis, the science of geometry should lose that rigour and purity, which characterizes its investigations, and the mind become debilitated by the facility of our analysis. He was therefore fully justified in recommending, to a certain extent, the study of the ancient geometricians; whole demonstrations, being more difficult and operose, afford greater exercise to the mind, acclimating it to a closer application, extend its views, and habituate it to patience and resolution, so necessary for making discoveries. This, however, is the only principal advantage resulting from it; for, if we refer back to the method of the ancients, it is probable that performances of the most acute and comprehensive genius would have made few or insignificant discoveries, in comparison of those obtained by means of the modern analysis. And even with regard to the advantages attending investigations, pursued in the manner of the ancients, which is that of being more rigorous, it may perhaps be doubted whether this pretention be well founded. As for those of Newton himself, who conducted his demonstrations in the manner of the ancients, it is evident that he investigates his theorems by a method different from that employed in the demonstrations, which are commonly analytical calculations, disguised by substituting the name of lines for their algebraical value; and though it must be acknowledged, that his demonstrations are rigorous, it is no less true that they would be the same when translated and delivered in the algebraic language; and what difference can it make in this respect, whether we call a line $AB$, or denote it by the algebraic character $a$? Indeed, this last designation has this peculiarity, that when all the lines are denoted by algebraic characters, many operations can be performed upon them, without thinking of the lines or the figure. And this circumstance is very advantageous, as it relieves the mind, so that its whole energy may be employed in overcoming the natural difficulty of the problem itself. Upon a comparison of the ancient and modern analysis, the result seems to be, that the method of the ancients is the best adapted to the commencement of our studies, as it serves to form the mind, and to fix proper habits; and that of the moderns should succeed, and be fitted to extend our views beyond the present limits, and to assist in making new discoveries and improvements. Montucla Hitt. des Mathematiques, tom. 1. p. 166. p. 195. Ittoton's Math. Dict. tom. 1.

Analysis is divided by some authors into simple and compound. Analysis, simple, is that employed in solving problems reducible to simple equations. Analysis, compound, or complex, that which gives the expressions or solutions of problems in compounded equations. Analysis is further divided, with regard to its object, into that of finite, and that of infinite.
The advantage of the modern mathematicians beyond the ancients arises chiefly from the use of this modern analysis.


Analysis of powers, doth the resolving them into their roots. In this sense analysis amounts to the same with what we otherwise call evolution.

We find divers other kinds of analysis treated of by mathematical writers, as the analysis of indivisibles, &c. M. Leibnitz spoke of an analysis fines, different from the analysis of magnitudes.

The analysis of geometrical curves fithe their properties and internal constitution, their curvature, points of inflexion, station, retrogradation, variation, &c. In this analysis curves are usually considered as polygons, composed of an infinite number of infinitely little sides, but this supposition is neither accurate nor necessary, though it sometimes affords convenient hints for invention.

F. Reynau, of the Oratory, has given a large system of algebra, under the title of analysis. F. Callet censes it as not sufficiently methodical or systematical. The great divi-

sions and members are lost in the multitude of particular rules and methods.

Analysis, in Rhetoric, is that which examines the connec-
tions, tropes, figures, and the like, inquiring into the pro-
pition, division, parallel, arguments, and other apparatus of rhetoric.

Several authors, as Fregius and others, have given analyses of Cicero's Orations, wherein they reduce them to their grammatical and logical principles; strip them of all the ornaments, and additions of rhetoric, which otherwise disguise their true form, and conceal the connection between one part and another. The design of these authors is to have those admired harangues, just such as the judgment disposed them, without the help of imagination; so that here we may coolly view the force of each proof, and admire the use Cicero made of rhetorical figures, to conceal the weak part of a cause.

A collection has been made of the analyses formed by the most celebrated authors of the sixteenth century, in three volumes folio.

Analysis of Soil, in Agriculture. See Soil.

Analysis of Vegetables. See Vegetables.

Analysis is also used as a kind of syllabus, or table of the principal heads or articles of a continued discourse; disposed in their natural order and dependency.

Analytical are more scientifical than alphabetical indices; but they are less used, as being more intricate.

Analysis is likewise used for a brief, but methodical translation of the principles of a science; in which sense it is nearly synonymous with what we otherwise call a synopsis.

ANALYST, a person who analyses a thing, or makes use of the analytical method. In which sense analyst amounts to much the same with complicate or calculator.

Some refrain the word more peculiarly to denote a mathematician, who makes a great use of the algebraic method or calculus in geometry, in exclusion of the synthetic, or strict geometrical method.

In a sense not unlike this Dr. Berkeley, an ingenious writer, gives the title Analys to a book against the modern geometry, or doctrine of fluxions.

ANALYTIC, ANALYTICAL, something that belongs to, or parts of, the nature of analysis.

Thus we say, an analytical demonstration; analytical inquiry; analytical table, or scheme; analytical method, &c. The analytic method stands opposite to the synthetic. See Method.

ANALYTICS, ANALYTICA, the science or doctrine and use of analysis.

To the modern analytically principally belongs algebra; the history of which, with the several authors thereof, see under Algebra.

ANALYTIQUE, in Literary History, is particularly used to denote certain writings of Aristotle under this title.

Aristotle's Analytica consist of four books, two under the denomination of former, Analitique prior, and as many under that of later, Posterior. They belong to the class of his astronomical works. Fabr. Bibl. Græc. lib. iii. cap. 6.

Analytics is also used by some for a part of logic, which teaches to decline and conclude reasons, as grammar does words.

ANAM, in Geography, is called by the Portuguese Cochin-China, and befits its hollow curve along the coast, from lat. 14° to 17° 30'.

ANAMBRA, or JAMISIA, a large and populous town in the kingdom of Fantin, on the gold coast of Africa, where the English have a fort. The inhabitants are generally deceitful and fraudulent, and are very artful in dealing and counterfeiting their gold coin. Anambra is reckoned the most powerful town upon the whole coast. It is divided into two parts; one part inhabited by the fishermen of Elmina, the other by those of Fantin, who pay a certain duty to the brass for the liberty of purifying their occupation. The greatest inconvenience attending the situation of the English fort at this place, arises from the difficulty of landing from the flaps, as the shore is covered with rocks projecting into the sea, and the surf rises to a great height; and, on this account, those that trade here, are landed by means of canoes upon a sandy point, surrounded by a wall, which is built by the company, and rendered convenient by lodgings for the negroes under the cannon of the fort. The fort is adapted for making bricks; the shells upon the coast furnish excellent lime; and the country affords great plenty of timber. The adjacent country is mountainous, but the hills are at a distance from the town, serve as land-marks at sea, and being covered with trees, afford an agreeable prospect. The country is populous, and very rich in gold, slaves, and all the necessaries of life, but more particularly
particularly in corn; and the palm wine is excellent. Their opulence has rendered the inhabitants haughty and arrogant. In the woods of this country are found the most beautiful parrots, and a great variety of other birds. Fruits, roots, and vegetables of every kind abound, and are cultivated with little trouble. The English fort is a large edifice, flanked by two towers, and fortified towards the sea with two batteries; it is constructed of brick and lime cemented with lime. It stands upon a rock at the distance of 32 paces from the sea; it is mounted with 12 pieces of cannon, and 12 pateroceres, and defended by a garison of 12 whites and 18 blacks, under the command of the chief factor.

The natives formerly treated the English garrison with so much insolence, as often to block them within their walls, and frequently, if they disliked the governor, they sent him in a canoe to Cape Coast, with marks of the utmost contempt. The negroes of Fante are the most turbulent upon the coast. In 1701 they declared war against the English, and, assembling in a tumultuous manner, lit fire to the exterior building, and proceeded with their outrages, till they were dispersed by a discharge of the cannon from the batteries. The English, however, took their revenge, by laying the greater part of the town of Anamabon in ashes; and hostilities continued for some time, till at last the natives were obliged to sue for peace. The fort was abandoned in 1733, but again refounded by the English, who have maintained possession of it ever since.

ANAMANI, ANAMANES, or ANANES, in Ancient Geography, were friends and allies of the Romans, who inhabited Gadisipine Gaul, at the foot of the Apennines to the south of the Po, having Trebia to the west, and Tarsus for their principal rivers. In the extent of their country were found Placentia, Velitra, Florentia, and Julia Fidenis. ANAMARI, a people mentioned by Polybius, and placed in the vicinity of Marsilles.

ANAMASCA, or ANAMATA, a town of Lower Panama, and placed by M. d'Anville south of Acinum.

ANAMBRA, in Geography, an island in the Indian sea, off of Borneo. N. Lat. 2° 55'. E. Long. 160° 44'.

ANAMIM, the second son of Mizraim, Gen. x. 13. Broughton takes his descendants to be the Numidians, among whom he finds Anabhis. Others suppose that they were the Anasites of Ethiopia. But as they were the descendants of Mizraim, and must be sought for about Egypt, the opinion of Bocchor is more probable, who conceives them to be the Nomades, who lived between Ammon and Nafanomites; and were called Anamis, from Am, which signifies a sheep among the ancient Egyptians; as it does among the Arabians. For the Nomades fed sheep, as Herodotus informs us, and lived upon them, whereas, they abstained from eating cows or swine; and their garments also were of shear-linen.

ANAMIS, in Ancient Geography, a river mentioned by Arrian (cap. xxxiii.), and supposed to be the same with that which is called Andamis by Ptolemy. It belonged to Carmania. M. d'Anville places this small river on a chart, which forms the communication between the sea and the Persian gulf.

ANAMMELECH, in Scripture History, an idol of the Sephanites, who are said (2 Kings, xvii. 31.) to have built their children in honour of this deity and Adrammelech. These were the same gods with Moloch, to whom the same sacrifices were offered. The Jewish rabbins represent one in the form of a peacock, and the other of a peafowl; but they were probably only different names of Moloch, which was the sun: the addition of Addir, signifying magnificent or potent, makes Adrammelech or the mighty Moloch, and of Ana, denoting to answer, forms Anammelech, or the Occular Moloch. Dr. Hyde (Rel. Vet. Pers. cap. ii. p. 65) is of opinion, that Adrammelech signifies the king of the flock; Addir denoting great; and Ana being the name with pecus in the Persian language, and expressing the latter cattle, viz. the sheep and goats; Anammelech was of much the same significatory. These gods, he observes, had the care of the flocks; and as the riches of these people consisted in cattle, were made the objects of their worship. They were also celestia constellations, as he observes, which, as the people imagined, promoted the breed and growth of cattle. Others make Adrammelech the sun, and Anammelech the moon.

ANAMNESEIS, from ana and nanoos, I remember, in Ancient Writers, denote enumerations of persons who had behaved well in war, or on other occasions, reaped before the emperors of Constantinople, to put them in mind of bestowing suitable rewards.

ANAMNESTICS, in Medicine, are used by some writers to denote those signs which help to discover the pale face of a patient's body, in which tides it stands opposed to prognostics.

These are otherwise called remembarians.

Some have used this term for medicines that are supposed to improve the memory, or restore it when lost. But this is a general title, says Dr. Cullen (Med. vol. i. p. 166), which seems to have no foundation at all, or which, if it had, is too general, and would be very improperly employed.

ANAMOKA, or ROTTERDAM, in Geography, one of the Friendly islands, in the South Pacific Ocean. It is situated in S. Lat. 20° 15'; and W. Long. 173° 31', about 18 leagues distant from Tongataboo, or Amsterdam: which it resembles in its aspect. Its form is triangular, and none of its sides exceed the length of four miles. Its extent is also diminished by a large salt lagoon which almost cuts off its southern-eastern angle from the sea. Its coves are surrounded by small islets, sand banks, and reefs, by which is formed a harbour on the south-western side of the island, with anchorage in 10 and 12 fathom. The bottom being coral sand. It is well sheltered, but no fresh water is to be obtained near the shore. On the north-west side are two coves, to which are narrow passages for boats through the reefs. To the southward of there is a bank, free from rocks, with 20 and 25 fathom depth, one or two miles from shore. The coast rises nearly perpendicular, 15 or 20 feet from the sea, and the interior appears level, excepting some small hillocks, and a more considerable one toward the centre of the island. It is similar to Tongataboo in form and productions, but less cultivated, even in proportion to its size. It is, however, better furnished with water, though somewhat brackish, having a pond about three quarters of a mile from thelanding-place on the north-west side, of half a mile in circuit. This island was discovered by Talman, in 1643, and called Rotterdam. Captain Cook arrived at it in 1774. The thefts were more frequently committed here than at the founahsans islands of the group; the character of the women appeared also to be more licentious, and that of the men more daring. Some of the natives dilliminished themselves by their good conduct, and most of them behaved well, except when they were tempted to steal some of the novelties presented by their visitors. Capt. Cook returned to this island in 1777. Lieutenant Bligh, in the Bounty, anchored at Anamooka in 1789. Pith apples, which had been planted in the islands visited by Capt. Cook, were found here at that time in a flourishing state. Capt. Edwards twice visited Anamooka in 1791. No subseqent visit to this island has been made known. It is ranked by the natives amongst the smaller islands of their Archipelago.
which contains 5; larger than this. A disease of the leporous kind, which seems to be common to all the islands of this ocean, is said to prevail more at Angamala than in any other part of this group. The general disease, introduced here by the English, has made a lamentable progress. As wood is an article procured here by all the tribes, care should be taken to avoid an accident, which may occur in cutting a tree, called by the natives fallam. This is a species of pepper, and yields a milky juice that injures the eyes and skin of the workmen. 

ANAMORPHOSIS, composed of ann and po[gra], form, in Perspective and Painting, a monstrous projection; or a representation of some image, either on a plane or curve surface, deformed and distorted: which at a certain distance shall appear regular, and in proportion.

To make an anamorphosis, or monstrous projection on a plane. Draw the square ABCD (Plate I. Perspective, fig. 1.) of any size at pleasure, and subdivide it into a number of arcubes, or letter squares. In this square, or reticle, called the craticular prototype, let the image to be distorted be drawn. Then draw the line ab (fig. 2.) equal to AB; and divide it into the same number of equal parts, as the side of the prototype AB; and in E, the middle of it, erect the perpendicular EV, so much the longer, and draw VS perpendicular to EV, so much the shorter, as the image is designed to be more distorted. From each point of division draw right lines to V, and join the points a and S, by the right line a S. Through the points d, e, f, &c. draw lines parallel to ab; then will aed be the plane in which the monstrous projection is to be delineated; called the craticular eclipse.

Lately, in every arcube, or small trapezium of the space aed draw what appears delineated in the correspondent arcube of the square ABCD; by this means you will obtain a deformed image, which yet will appear in just proportion to an eye distant from it by the length of EV, and raised above it be the height VS.

It will be diverting to manage it so that the deformed image may not represent a mere chaos but some other image: thus, we have seen a river with its islands, warehouses, &c. marching along the side of it, so drawn, that when viewed by an eye in the point S, it appears to be the faithful face of man.

An image also may be distorted mechanically, by perforating it here and there with a needle, and placing it against a candle or lamp; and observing where the rays, which pass through the eyes' little holes, fall on a plane, or curve superficies; for they will give the correspondent points of the image deformed; by means whereof, the deformation may be completed.

Let the image, whatever it be, e. g. IHS, be drawn upon a cylinder of paper or pasteboard, ABCD (fig. 3); and the perforations being made as now described, place a candle G, behind the cylinder, and mark upon the ground the points corresponding to the perforations of the image, which will be distorted more or less, according to the position of the candle, or the plane, &c. Then, let the picture that is formed be an exact copy of this distorted image, and substitute a metallic speculum in the place of the cylinder, and let the eye of the spectator have the same position before the cylinder that the candle had behind it, the distorted image will, by reflection from the speculum, be reflored to its proper shape.

Anamorphosis, to draw the, or deformation of an image, upon the convex surface of a cone.—It is manifest from the former cafe, that here it is merely required to make a craticular éctype on the superficies of the cone, which shall appear to an eye duly placed over its vertex equal to the craticular prototype.

Let the base, or periphery, ABCD, therefore, of the cone (fig. 4.) be divided by radii into any number of equal parts; and let some one radius be likewise divided into equal parts; and through each point of division draw concentric circles; thus will the craticular prototype be made. With double the diameter AB, as a radius, describe the quadrant EFG (fig. 5.) so that the arch EG may be equal to the whole periphery: then this quadrant, duly folded, will form the superficies of a cone, whose base is the circle ABCD. Divide the arch EG into the same number of equal parts as the craticular prototype is divided into; and draw radii from all the points of division. Produce GF to I, so that FI = FG; and from the center I, with the radius IF, draw the quadrant IFK; and from I to E draw the right line IE. Divide the arch IF into the same number of equal parts as the radius of the craticular prototype is divided into; and draw radii through each of the points of division, from the centre I, meeting EF in 1, 2, 3, &c. Lately, from the centre P, with the radii, F 1, F 2, F 3, &c. describe the concentric arches. Thus will the craticular éctype be formed, the arcole of which will appear equal to each other.

Hence what is delineated in every arcole of the craticular prototype, being transferred into the arcole of the craticular éctype, the images will be distorted or deformed; yet an eye raised above the vertex of the cone, at a height equal to that of the cone itself, will perceive them in just proportion.

If the chords of the quadrants be drawn in the craticular prototype, and chords of the four parts in the craticular éctype, all things else remaining the same, you will have the craticular éctype in the quadrangular pyramid.

And hence it will be easy to deform any image, in any other pyramid, whose base is any regular polygon.

Because the eye will be more deceived, if from contiguous objects it cannot judge of the distance of the parts of the deformed images; therefore, the kinds of deformed images are to be viewed through a small hole; and when they are made to appear like the objects which they are intended to represent, by means of a mirror of any particular construction, these anamorphoses are said to be reformed. See Mirror.

The original author of this ingenious device is not known. Simon Stevinus first wrote upon it, without informing us from whom he acquired it. The principles of it are laid down by S. Vanzeland, in his "Perspective Conique et Cyllindrique," and Gasper Schottius, professing to copy Marius Butinus, in his description of this piece of artificial magic. Other methods more exact and geometrical than that above described, in which a lamp or candle was used, were afterwards invented, and rules laid down for drawing the requisite figures. Schottius quotes one of those methods from Butius, another from Hevigninus, and another from Kircher, which may be seen in his "Magia," vol. i. p. 162, &c. He also gives an account of the methods of reforming pictures by speculums of conical and other figures. The method given by Dr. Smith, (in his Optic, vol. i. p. 250.) is, without doubt, the best; and from this any person may easily make a drawing of the same kind. The same description answers to two mirrors, one of which, fig. 6, is convex, and the other, fig. 7, is concave. In order, therefore, to paint upon a plane a deformed copy, ABCDEKIHGF, of an original picture, which shall appear regular, when seen from a given point O, elevated above the plane, by rays reflected from a polished cylinder, placed upon the circle,
circle, hp, equal to its given base; draw from the point R, which is supposed to be directly under O, the place of the eye, two lines RA, RB, which shall either touch the base of the cylinder, or else cut off two small equal segments from the sides of it; as the copy is intended to be more or less deformed. Then taking the eye, raised above R, to the given height RO, somewhat greater than that of the cylinder, for a luminous point, describe the shadow arey, of a square acez, fig. 8, or parallelogram standing upright upon its base ae, and containing the paper required, any where behind the arc hp. Let the lines drawn from R to the extremities and divisions of the base a, b, c, d, e, cut the remotest part of the shadow in the points f, g, h, i, k, and the arc of the base in l, m, n, o, p; from which points draw the lines lA, mB, nC, oD, pE, k, as if they were rays of light that came from a focus R, and were reflected from the base hp, so that each pair, as lA, lR, produced, may cut off equal segments from the circle. Lastly, transfer the lines lA, mB, nC, oD, k, and all their parts, in the same order, upon the respective lines lA', mB', nC', oD', k, and having drawn regular curves, by estimation, through the points A, B, C, D, E, through F, G, H, I, K, and through every intermediate order of points; the figure ACEKH, so divided, will be the deformed copy of the square, drawn and divided upon the original picture, and will appear similar to it, when seen in the polished cylinder, placed upon the base hp, by the eye in its given place O.

The practical method of drawing these images seem to have been carried to the greatest perfection by J. Leopold, who, in the Leipsic acta, for the year 1712, has described two machines, one for images to be viewed with a cylindrical, and the other with a conical mirror. The person, who has this instrument, may take any point at pleasure, and whilst he goes over the outlines of it with one pen, another traces the anamorphosis.

By methods of this kind, groves of trees may be cut, so as to represent the appearance of men, horses, and other objects from some one point of view, which are not at all discernable in any other. This might easily be effected by one person placing himself in any particular situation, and giving directions to other persons, what trees to lop, and in what manner. In the same method it has been contrived, that buildings, of circular and other forms, and also whole groups of buildings, consisting of walls at different distances and with different positions to one another, should be painted so as to exhibit the exact representation of particular objects, which could only be perceived in one situation. Bettinus has illustrated this method by drawings, in his "Apotria."

In the cloister of the Minims, in the Place Royale, at Paris, there are two anamorphoses traced upon two of the sides of the cloister, one representing a Magdalen, and the other St. John, writing his gospel. They are so managed that when viewed directly, they appear like a kind of landscape, but from a particular point of sight they appear very distinctly, like human figures. These two figures were executed by Nicoleau, a Minim, who published a treatise, entitled "Thaumaturgus Opticus," in which he has described the manner of tracing anamorphoses on any surfaces. In vol. iv. of the Memoirs of the Imperial Academy of Peterburgh we have the description of a similar anamorphosis, by Mr. Lutman, in honour of Peter II., emperor of Russia. On the subject of this article, see Wolfius Elements Mathematicks, sect. vol. iii. cap. v. p. 89, &c. PrieiUey's History, &c. of Wales, &c. p. 93-96.

ANAMSAGAR, in Geography, a town of Hindostan, in the county of Vittapour, 51 miles east of Baldamy, and 71 south-east of Calgala. Vol. 17.

ANANAS, in Botany, by some called "anemos," and by others "jabana," and popularly the "pineapple." On account of the resemblance it bears to the cones of pines and fir, it is a species of Bromlia.

ANANAS, in Natural History, a species of Madelepora, in the fourth order of Verses, Zeophyta, the flares of which are angular, convex, and concave in the disk. This kind inhabits the Mediterranean and South American seas, and is often found in a scufi flate.

ANANCITIS, in Antiquity, a kind of figured stone, otherwise called synochitis, to which superstition ascribed a magical virtue in raisinp the shadows of the infernal gods.

ANANDRIA, in Botany, a species of Tussilago.

ANANES, in Geography, three small islands in the Cretian Archipelago, about three leagues south-west of the isle of Milo.

ANANISABATA, or ANANISBATTA, in Antiquity, a magical word inscribed on coins and other amulets, and supposed to have efficacy in preserving the wearer from the plague.

ANANTHOCYCLUS, in Botany. See Cotula.

ANANITOUR, in Geography, a town of Hindostan, in the Miyore country, 85 miles north-east of Chitteldoorg, and 150 north-north-east of Sarangapatam.

ANANUS, the Younger, in Biography, a Sadducee, was appointed high-priest of the Jews by Agrippa, the younger, about A.D. 60. Jofephus (Antiq, lib. xx, cap. 8, § 1.) represents him as fierce and haughty in his behaviour, and extremely restless and daring; and as belonging to the sect of the Sadducees, who were above all other Jews cruel in their judicial sentences. Upon the death of Festus the Roman governor, and before the arrival of Albinus, appointed to be his successor, Ananus called a council, and bringing before it James, our Lord's brother, and some others, he accused them as transgressors of the laws, and had them fined to death. Jofephus says, that many were offended at this proceeding. Some, he says, went running to meet Albinus, who was coming from Alexandria, and put him in mind, that Ananus had no right to call a council without his leave. Albinus approving of what they said, wrote a very angry letter to Ananus, threatening to punish him for what he had done, and king Agrippa took away from him the priesthood, after he had enjoyed it three months, and put in Jefus, the son of Damneus. Dr. Lardner infers from this circumstance, as well as others, that the Jews had not at this time the power of life and death. Works, vol. i. p. 81.

ANANUS, a learned Jewish Rabbi, who flourished about the year 760. He was denied the title of gaon or excellent, though a man of great learning, on account of some material error of which his doctrine was fullfed; and the suspicion appears to have been well founded, as he became the reiuer and chief of the Sadducean sect, which, after having been long almost extinct, became formidable to that of the Pharisees. Gantz Tzemach David, p. 725.

ANANDON PORTUS, in Ancient Geography, Santo Hespiote, an obscure port, which the author of the "Itinerarius Meritimus," commonly supposed to be Antouine, places between the Portus Herculis and Nicia. Clavier has confounded it with Aviho. M. d'Anville places it in a small creek, at the extremity of a small peninsula, to the east of Nicia, and forming to the west the Portus Diliuva, and to the east the Portus Aviho.

ANAPHEST, AMAPHESTUS, a foot in the Greek and Latin poetry, consisting of two short syllables, and one long, being the reverse of the dactyl.
The word is derived from ἀναφαίης, contr. ἀναφαιν, because in dancing this measure, the ground was thrashed in a contrary order from what it was in the dactyl. Whence the Greeks called it ἀναφαίης. Danae, ii. 42, 54.

Such are the words ἀναφαίης, ἀναφαιν, ἀναφαίης, ἀναφαιν, &c.

Hase Vellinga (loc. rais., Rhythms, p. 59) has said that the English have no perfect model in their language. But Dr. Dunlop (Hist. Music, vol. i. p. 79) observes, that the change is easily confounded by the mere mention of the words recommend and adjuration.

ANAPASTIC, or ANAPHETIC, sometimes is used in a

substantive sense.

Such is the ἀναφαίης ἀριστοφαίης, in Cicero, which is a

verse consisting of eight feet, as

"Asena ponti per frecta colches denique delatus adulter.

Vide Cir. in Orat. cap. 56. Fabri. Thef. in voc. Anaphefis.

This is otherwise called anaphefis εκενεωριος.

Anaphetic, in an adjective sense, something relating to or composed of anaphefis.

Anaphetic kind, genus anapheticum, is a sort of verse composed of pure Aristophanic or Parthenic anaphefis.

Anaphetic verses are either Aristophanic or Partheneic. Anapheticus Aristophaneum, called also Parthenaeum, consists of three anaphetes, and one long syllable, but so as that instead of the first two anaphetes, as many spondees may be used.

Its type stands thus:

\[
\begin{array}{cccc}
\text{1} & \text{2} & \text{3} & \text{4} \\
\hline
\text{5} & \text{6} & \text{7} & \text{8} \\
\end{array}
\]

- Venient cito secula quam jam
- Socius calor offa reviet
- Animatique fangevne vivo
- Habitacula prifina geget
- Lacrymam suspendite cunet
- Mors hect reparatio vita eft.

Pindaric Anaphefis admits, in the first place, either of an anaphet or a spondee; in the second, only of an anaphet; in the third, of an anaphef or a spondee; in the fourth, either of a spondee or a trochee.

\[
\begin{array}{cccc}
\text{1} & \text{2} & \text{3} & \text{4} \\
\hline
\text{5} & \text{6} & \text{7} & \text{8} \\
\end{array}
\]

- In summa pericula venturi
- Multos timor tpic mali mittit.

ANAPAUMENAE, in Ancient Geography, a fountain of Greece, in the Molossia, which was part of Epirus. It was situated near that of Dodona, and was also denominated "fons Jovis.

ANAPES, in Geography, a town of Flanders, one league from Lille.

ANAPHE, in Ancient Geography, an island of the Cretan sea, supposed to be one of the Cyclades to the east of Thera. Steph. Byz. says, that it was one of the Sporades. Its first name was Membliares, which it derived from Membracia, the Phocian, who, when his relations went in quest of Europa, accompanied her, and settled in the neighbouring island of Thera. It was afterwards called Anapha, a Phocian word, which, according to Bochart, signifies shaded and dark, an epithet given to this island, on account of its gloomy and thick forest. But the most commonly received opinion is, that it owes this name of Anapha to the Greek word ἀναφαίης, to appear, from the thunder having on a sudden occasioned it to rise from the bottom of the waters, in order to receive the fleet of the Argonauts, on its return from Colchis, when asailed by a tempest. The fable of antiquity is the history of the formation of this island, now called Nanto, which a volume could appear sufficiently above the sea, in the midst of a violent agitation of the atmosphere and the waves, which has happened to some other islands of the Archipelago. In memory of this event was built a temple, mentioned by Strabo, which was consecrated to Apollo Aeetes, or dazzling with light. Slight vellages of this temple still remain on the place which it occupied, in the fourth part of the island; and the marble of which it was constructed was taken from a very steep rock, of a terrifying aspect, on whose summit is now set a chapel, dedicated to our Lady of the reed: in modern Greek "parmia kalamotika." For a further account of the present state of this island, see Nanto.

ANAPHILYSTUS, a small maritime town of Attica, in the tribe of Anticles, very near Athens, towards the cape Calvin, and north-west of Cereon. It had temples of Pan, Ceres, Venus Colladies, and the goddesse called Genetylides. This place is now called Eleus.

ANAPHRAXA, ἀναφραξα, signifying repetition, in Rhetoric, a verbal figure, whereby one or more words are repeated in the beginning of several sentences or verses.

This is a lively and elegant figure, and serves very much to engage the attention; nor by the frequent return of the same word the mind of the hearer is held in an agreeable suspense till the whole is finished.

Such, e. gr. is this of the Psalms, "The voice of the Lord is powerful: the voice of the Lord is full of majesty: the voice of the Lord shaketh the wilderiffs.

"You do nothing," says Cicero to Catiline; "you attempt nothing, you think nothing, but what I not only hear but also see, and plainly perceive." This figure is frequently used by way of interrogation, which renders it not only beautiful, but likewise strong and nervous. Thus Cicero, at the beginning of the same speech: "Does neither the night-guard of the palace, nor the city-watch, nor the people's fear, nor the agreement of all good men, nor the meeting of the Senate in this fortified place, nor the countenances and looks of this assembly, all move you?" And in another of his orations: "What is so popular as peace, which seems to afford a pleasure, not only to beings endowed with sense, but even to inanimate nature? What is so popular as liberty, which even beaks as well as men feem to covet and prefer above all things? What is so popular as ease and leisure, for the enjoyment of which you and your ancedors have undergone the greatest labours?" Contra Rull. ii. c. 4. Ward's Oratory, vol. ii. p. 56.

ANAPHRAXA is used in the Ancient Medicine, for the rejection of matter by the mouth.

Hence also we meet with the term anaporphic, ἀναφορικος, used for those labouring under an hemoptysis, who bring up blood from the lower part of the mouth.

Anaphora, among Ecclesiastical Writers, denotes the host, or species offered in the eucharist.

Anaphora is also used to denote the rehearsing of a person's name from the diptych in the liturgy.

Anaphora is also a title given to those little Syriac liturgies, wherein are contained the prayers after the ευχλεμον πτοις. Ignatius, patriarch of the Maronites, enumerates forty of these anaphores.

Anaphora, in Astrology, denotes the second house, or that
that part of heaven which is thirty degrees distant from the
horoscope.

The term anaphora is sometimes also promiscuously ap-
pied to some of the succeeding houses; as the second, fifth, eighth, and eleventh. In this sense anaphora amounts to
the name with *epanaphora*, and stands opposed to cataphora.

**Anaphora** is also applied by some to the oblique ac-
fections of the stars.

**Anaphrodisia**, from αν and ἂφεδρος, *Venus*, de-
notes impotency in respect of venery. Some also use it for a
want of desire or inclination to the sex.

In this sense the academists *Nature Curiosae* give an ex-
traordinary instance of this kind in a person otherwise
94. See Impotency.

**Anaphus**, in *Entomology*, a species of *Papilio*, in
the division *Papilio Ursico*, that inhabits Surinam. It has
no tail, and is uniformly brown, except the apex of the
lower wings, which is yellow. Fabricius.—The antennae
are hooked at the end.

**Anaphysemata**, from αν and ψειδ, *I send forth,
in some Ancient Writers*, denote winds issuing from
underground, at the cliffs or apertures thereof.

These are sometimes called by later writers ἐρασαί.

**Anapalias**, from αν and παλαις, *I turn, in Sur-
gery*, the complete restitution of a broken bone, so that the
two ends meet, and close exactly together. This is the
name with what is otherwise called *diaphysis*.

Anapalias also signifies a restitution of the extended flesh.

**Anaplerosis**, in the general sense, denotes re-
plication. Anapleoritis is more particularly used to denote
that part of surgery whereby things wanting are supphed.

In which sense anapleoritis amounts to the name with what
we otherwise call application, or *prothesis*.

**Anaplerosis**, in the *Civil Law*, is a name which same
give to the four last books of Julianin's Code.

**Anaplerotics**, from αναπληταις, *I fill up, in Medi-
cines*, such remedies as incarnate and fill up ulcers and wounds
with new flesh.

Anaplerotics are the name with what we otherwise call
*incarnatives*.

**Anapodari**, in Geography, a river of the island of
Candia, which rises at Callk Bonifacio, runs near Cassel
Boulevard, and discharges itself into the sea between Cape
Matola and Cassel de Girapetra. The ancients called it Ca-
taractus.

**Anapodophyllum**, in Botany. See Podo-
phyllum.

**Anapuia**, in Geography, a province of Venezuela, in
South America, towards the mountains of St Peter, and the
source of the Buria.

**Anapus**, or *Anapsis*, in *Ancient Geography*, the name
of a river of Sicily, which ran from west to east at the distance
of about two miles from Ortygia, and somewhat less than a
mile and a half from Neapolis, and discharged itself into the
great harbour of Syracuse. This stream, which is only 24
feet wide, and 12 or 15 deep at its mouth, flows, in a terpen-
tine course, through a small extent of country, which, though
slightly elevated in its south and south-western side, on the
north and north-west confines of an extensive marshy plain.
This plain lying between the river and the city, is terminally
by two fens or moors, the one called Syrcas, where the city
was named, and the other Lyamela. Between the Anapus
and the promontory of Plinyrium, was situated the little
inlet of Olympia, surrounding the site of the ancient temple
of Jupiter Olympus, built upon an eminence, and bounded
on either side by the vast Lyamelian marshes, extending
from the head of the great harbour, half covered with
water in the vernal months, and exhalting under an al-
mot vertical sun, the most unwholesome and pestilential
vapours. To this river the ancients gave the name of
*Alpheus*.

Anapus was also a river of Illyria, which ran near
Liffus.

Anapus was also a river of Epirus, in Chaonia. Thucy-
dides reckons it from this river to Stroton, or Stratus, a
considerable place of Achaia.

**Anaquitio**, in Geography, a country or America in
Peru and in the province of Quito.

**Anaraci**, a people of Scythia, on this side the Ganges, according to Ptolemy.

**Anarchy**, people of Scythia, placed by Ptolemy be-
low the Agathyri.

**Anarchi Montes**, mountains of Scythia, forming
part of the chain of Imaus.

Anarchi, in Antiquity, a name given by the Athenians to
four supernumerary days in the year, during which they
had no magistrates.

The Attic year was divided into ten parts, according to
the number of tribes, to whom the presidency in the senate
fell by turns.

Each division consisted of 35 days; what remained after
the expiration of these to make the lunar year complete,
which, according to their computation, consisted of 354 days,
were employed in the erection of magistrates, and called
τριάδες, and ἀπεξήγησις.

**Anarchy**, derived from the Greek privative αν, and
αρχή, *principality*, the want of government in a nation, where
no supreme authority is lodged, either in the prince or other
rulers; but the people live at large, and all things are in
confusion.

All kinds of states are subject to anarchy. We read of
civil anarchies, ecclesiastical or spiritual anarchies, and even
anarchies in the republic of letters.

Anarchy is supposed to have reigned after the deluge,
before the foundation of monarchies. We find it obtain in
diverse parts, especially of Africa and America; e. g. among
the Illinois, who are observed by travellers to live in a per-
fected independency of any superior; among the Californians,
where every family makes its own laws as well as religion;
in Chili, where every master of a family is a king; in the
Marian islands, where neither prince nor law is known, but
every perfon governs himself according to his own will; and
to mention no more, among the Hottentots, where the only
semblance of government is, that in each neighbouring
the elder is the first in honour, and his advice chiefly fol-
lowed, not from any civil authority he is vested with, but on
account of his superior experience.

Some extend the idea of anarchy farther, so as to make it
comprehend all the more popular governments. In this
sense anarchy amounts to much the same with democracy.

Hobbes, in this sense, calls the Roman commonwealth an
anarchy.

It has sometimes been controverted which of the two is
best, a state of anarchy, or of tyranny and arbitrary power.
This controversy, however, does not appear to be of any
great use; it is of little purpose to determine which is best,
for a state of anarchy, naturally, may, neccisarily, pave the
way for despotism; and confusion is always the parent of
oppression.

**Anarchy** is also applied to certain troublesome and
disorderly
diforderly periods, even in governments otherwise regular. In Germany, the interval from the election of Richard, duke of Cornwall, to that of duke Rudolf of Lorraine, is commonly called the anarchy, or interregnum.

In England, the period between the death of Cromwell and king Charles's Restoration, is commonly represented as an anarchy. Every month produced a new scheme or form of government. Enthusiasts talked of nothing but annulling all the laws, abolishing all writings, records, and regillers, and bringing all men to the primitive state. No modern nation has been more subject to anarchies than Poland: where every interval between the death of one king, and the election of another, was a perfect picture of confusion, in so much that it became a proverb among that people. Poland is governed by confusion.

The Jewish history presents numerous instances of anarchies in that state usually denoted by this phrase, that in those periods there was no king in Israel, but every man did that which was right in his own eyes, which is a just picture of an anarchy. The first anarchy we read of in that commonwealth, is that which ensued on the death of Josiah, who leaving no successor, the government devolved on the elders of the tribes, who ruled each according to his own will. After the death of these elders the anarchy became complete.

ANARGYRI, in Ecclesiastical History, is an appellation given to certain saints in the Greek church, who having been physicians, gave not only their advice but their remedies gratis. They are also called argyropotes.

ANARGYRUS, from α and αργυρος, money, in Ancient Writers, denotes a person without money, though otherwise sufficiently accommodated with land and other effects.

In a like sense we sometimes also meet with the word anargyria, used by lawyers for the condition of a person without ready money.

Mart. Phil. Fabricius has a dissertation De Exceptione Anargyriz.

ANARHAPHE, from α and αρματος, futurus, in Surgery, denotes a kind of future or retraction of the upper eye-lid, when relaxed and hanging over the eye.

This is by some also called futura blepharica, by others abbreviatio, contradictio, collection, or suppeso superioris palpebro.

It is used in the phlegmen, peñis, or eolysis; where the sight is obliterately by a prolapus of the part, or the eye-lid itself is too thick befit with brightly hairs both within and without.

ANARHICHAS, in Ichthyology, a genus of the order Apodes. The head is obtuse, fore teeth in each jaw conic, large, divergent, fix in number or more grinders in the lower jaw, and palate rounded. Six rays in the gill membrane. Body roundish, tail sin distat. Linn. Gmel. — The species of this genus are Lupus, Minor, and Pantherinus, which see.

ANARIA, in Ancient Geography, Ischia, an island south-east of Baia. Augustus gave it to the inhabitants of Neapolis, in exchange for the island of Capraza. It was also called Pytheus.

ANARIACA, a town which, according to Strabo, was near the Caspian sea. It is suppos'd to have been situate between Albania and Hircania.

ANARIS MUNDI PRIMUM, was situated, according to Ptolemy, in the island of Taphrosana.

ANARIUM, a town of Asia, in Greater Armenia, according to Ptolemy.

ANARIPI, a people placed by Ptolemy in Germany.

ANARKHION, in Byzanz, a name given by some of the ancients to the plant called by others lychnis agris, and by others antirrhinum. Pliny tells us, that this plant reflected wax, that it had scarce any root; that its flower was the colour of the hyacinth, and its fruit resembled the nose of a calf. It is from this resemblance that we at this time call the plant colocynth. Dioscorides says, that it was like the amagallis.

ANARES, or ANARTI, in Ancient Geography, a people who inhabited the north-west part of Dacia, according to Caesar and Ptolemy.

ANARTHRA, from α and αρθρος, joint, in Natural History, a class of naked insects, distinguished from all others by having neither wings nor limbs. To this class belong all kinds of worms and leeches.

ANARTOPHRACITI, in Ancient Geography, a people placed by Ptolemy in Sarmatia, adjacent to the Ombrones, in European Sarmatia.

ANAS, now called Guadiana, a river of Spain in Baskica. ANAS, in the Linnean system of Ornithology, the name of an extensive genus of birds, of the order Anseres, and known in England by the general names of Swans, Geese, and Ducks. The Linnean character of this genus is taken from the form of the bill and tongue; the bill being convex, obtuse, and the edges of both mandibles befit with lamel-lated teeth; the tongue ciliated and obtuse. Linn. Gmel. To this concise generical distinction some authors add, that the bill is strong, broad, depressed, and commonly furnished at the end with an additional piece or nail; nostrils small and oval; tongue broad, and fringed at the edges, near the base; toes four in number, three being placed before, and one behind, and the middle one longest. Latham. Gen. Syn.

The species of this genus, according to the late authorities of Linneus, Latham, Gmelin, &c., are —

Amer. teal
Cacumen, ruddy goose
Cineria, ash-coloured, or log-gered head goose
Circia, summer teal
Clangula, golden-eyed duck
Clypeata, shoveller
Coromandelana, Coromandel teal
Cofeculae, Chili goose
Cricca, common teal
Cripfe, crested duck
Curvirostra, curve billed duck
Cyanus, Chinese goose
Cynus, wild or whittling fowl
Domiatic, Damietta duck
Difors, blue-winged teal
Dispar, western duck
Domestica, common tame duck
Dominica, St. Domingo duck
Dominian, Dominican duck
Erythrops, Bermalm goose
Erythropolis, crimson-billed duck
Falcata, falcated duck
Perina, pochard, or red-head ed goose
Ferruginea, ferruginous duck
Fornicata, Baikal teal
Gyphala, tufted duck
Huecida, Mexican pochard
Pufa, velvet duck
Eufa, brown duck
Calocikula, Chinese teal
Ooamis.,
Gambuka, spur-winged goose
Gaitoir, Gannair duck
Georgica, Georgia duck
Glaciaria, long-tailed duck
(Latham)
Glocis, grey-headed duck
Gloetemis, binnaculated duck
Gmelini, Russian teal
Grandis, great goose
Hina, Hina teal
Hylomitra, harlequin duck
Hylida, Hybrid fawn
Hyemalis, long-tailed duck
(Edwards)
Hyperborea, snow goose
Jacquini, chenuet-coloured duck
Jamacensis, Jamaica shovel
India, barred-headed duck
(Iatham)
Icelandica, Iceland duck
Kagolka, Kagolka duck
Kuckwxula, Kuckuxula duck
Labradoria, pied duck
Leucophala, white-headed duck
Leucoptera, bufflo goose
Lurida, bird duck
Madagascanfa, Madagascar teal
Magellanica, Magellanic goose
Malacoikeous, soft-billed duck
Manillavis, Manilla teal
Marilla, scap duck
Margra, ural duck
Melanoccephala, black-headed fawn
Melanotes, black-backed goose
Melanura, black-tailed duck
Mexicana, Mexican duck
Minuta, minute duck

ANASARCA from ανασαρκα, in Medicine, a sort of universal dropsy, wherein the whole or consideral part of the body is flouted or bloated with watery fluid.

This distemper is sometimes also called anasarca, sometimes diaplastia, sometimes diapharism, sometimes aquas inter calorem, or interitus, because the humour spreads itself through the flesh. Serenus Samonius elegantly calls it lymphaticus error; Albusca calls it a droppy by infiltration.

Preternatural collections of water in any part of the body, except the urinary bladder, are called Dropsies. Some of these are confined to particular cavities, and take their name from that of the cavity, as, hydrothorax, or a droppy in the chest; sphenitis, a droppy of the esophagus, &c. but anasarca may take place in any part of the body where there is cellular membrane. Dr. Cullen places it in his third class, Ca- chexia, order, Intemofusitus, aquosus, and admits several species of it, depending on the remote cause. The most usual and general Cause of anasarca is debility, whether induced by fatigue, or watching without lying down, by hemorrhage, by crepitant fever, or by deficient or watery food. It is sometimes believed to arise during pregnancy, from the pressure of the uterus on the veins which return the blood from the lower extremities.

The Efferal Character of this disease is founded on the swelling being pale, soft, and leaving a pit after preressure with the fingers.

Symptoms. As anaeractive affections differ much in degree or severity from a slight swelling of the feet and ankles to-wards night, to a general diffusion of water throughout the cellular membrane of the whole body and extremities; so the symptoms or degrees of distests experienced by the patient are greatly diversified. That which first attracts his attention is a flush of the ankles, a remaining long in the erect posture. This increases daily till the feet, legs, and thighs become so large, that the skin seems in danger of bulunting. When the disease approaches towards this magni- tude, the water shifts its place with the posture of the body; so that after lying in the horizontal posture all night, the swelling of the legs will be much diminished, while that of the trunk, arms, and face will be increas'd. In this stage the patient often experiences dyspnoea and thirst, with loss of appetite; the secretion of urine is diminished; the feronium, or labia are so distended, that walking becomes im- practicable, when the swelling and flush of the feet alone would not have rendered it so. This is the usual progress of anaerases; but it sometimes supervenes so suddenly, that the whole body will partake of the swelling in twenty-four hours. There is no doubt that it may often exist alone, without any other species of droppy; we however very com-monly find it combined with Hydrothorax, or Ascites; and it is then of course more difficult of cure. The prognosis is generally unfavourable, in old people especially, or those who have injured their constitution by the abuse of spirituous liquors. Where the affection is slight, and brought on by sitting up for several days and nights, in a good constitution we may always expect a cure.

The treatment should be adapted to the state and degree of the disease. In slight affections of short standing, flannel rollers to the feet and ankles, with bark or flannel internally, will generally succeed. In severe cases we attempt the cure on the following plan, viz.

1. We obviate all causes of debility by diet, air, and excursive; and we endeavour to restrain all debilitating evacuations.

2. We should then employ the means which are found most successful in evacuating the collected fluid. The first of these is to promote its absorption; which is done,
   A. By the pressure of bandage and friction, with or without mercurial ointment.
   B. By Emetics; especially hydrag, virtilatous, cu- prum virtilatous, pulvis antitumoralis, and, above all, chloratum in powder.
   C. By Purgatives, such as columel, gamboge, elate- rium and jalap combined with crystallis of tartar, nitre, or kali acetum. The absorption, in this case, most probably, is a consequence of the in- creased evacuation from the intestines.

When the aqueous fluid is absorbed and carried into the blood, the secretion by the kidneys is commonly increased, by which it is carried out of the body. But if this should not take place, we have recourse to these medicines called

D. Diuretics. Whether these exert their action on the kidneys alone, or whether they produce their effect by promoting the activity of the absorbent system, is not ascertained. The most successful diuretics are mercury, whether introduced by friction or taken internally; and it appears to be a good prepara-
tion for the employment of all other remedies of this class. Squills, recent or dried, or an infusion of them in Lisbon wine; the tincture of digitalis, which being a medicine of great power, requires diligent watching; kali saturet with vinegar of squills; the juice of leeks; the extract of brain tops; the infusion of juniper berries with sweet spirit of nitre, infusion of tobacco, sic & sic. The

3. When by such means as these we have evacuated

4. Dr. Dyer's cure for an anaemia is an electuary composed of decum prepared with sulphur and crude antimony, each an ounce; digastricum, four ounces; make a fine powder of these; then add as much of any syrup as will make a soft electuary.

5. ANASCHOUADI, in Batavia. See ELEPHANTOPUS.

6. ANASSA. See BRONELIA.

7. ANASSAS, in Natural History, the name of a fruit very common in Guinea, and in some other parts of Africa. It is very beautiful to the eye, and not less agreeable both to the taste and smell, and is by some accounted the finest fruit in the world. The descriptions we meet with of it are very imperfect, but as there is nothing in them that contradicts its being the pine-apple, it may be that fruit, and if so, it deserves all the praise that is given to it. See BRONELIA.

8. ANASSUS, or ANAXES, in Ancient Geography, a river of Italy, in the territory of Venice, now the Poce. According to M. d'Anville, it runs from the north to the south, and falls into the bottom of the gulf, to the west of Aquileia, near Muranum.

9. ANASTAMIA, in Geography, a considerable sea-port town of Japan, the principal commerce of which is wood.

10. ANASTASIA, in Ancient Geography, a town of Melopotamia, nearly south of Nisibis. It was for a long time a small place known by the name of Dara. When the Persians and Romans concluded a treaty, the emperor Anallaus fortified Dara, enlarged and beautified it, and called it Anallaus.

11. ANASTASIOPOLIS, a name given to five cities; one in Syria, another in Phrygia, a third in Caria, a fourth in Galatia, and a fifth in Thrace.

12. ANASTASIS, a Greek word adopted into the English language, which denotes a resurrection.

Chief has given us a dissertation on Childerie's tomb, under the title of Anastasii Chalderiei. Trusler has published the figure of a man and woman in the ancient German habit, as found in an ancient urn, under the title of Anastasii vetera Germani Germanorum Eaiminit.

13. ANASTASIS, among Ancient Physicians, denotes a rising up to go to flot. It likewise signifies a migration of humours, when expelled from one place and obliged to remove to ano her.

14. ANASTASII I. in Biography and History, emperor of the East, born at Dura, in Lylyricum, A.D. 432; and, from being one of the officers of the great chamberlain, called Silentiarius, and before he had obtained the rank of senator, was advanced to the empire, A.D. 491. His promotion was owing to the interest and influence of Ariadne, the widow of Zeno, who prevailed upon the senate to acknowledge Anslafius, in opposition to the claim of Longinus, the brother of Zeno, as his successor. As soon as he had attained this dignity he married Ariadne, bring them in the 50th year of his age. Such was the estimation in which he was generally held, on account of his temperance and integrity, before his advancement, that, upon his receiving the purple and diadem in the circuit, the people, applauding his promotion, exclaimed with a voice, "Regn, Anslafius, as you have lived." The first act of his reign confirmed their expectations; for he immediately remitted whatever was due to the treasury, and entirely abolished the infamous tax, called the CHRYSEURUS. He also expelled all informers from Constantinople, and put an end to the enormous abuse, introduced by his predecessor Zeno, of expelling to exile public officials, and hewing, to the great oppression of the people, the chief governors on the highland borders. The tranquility of his reign, though that popular at its commencement, was soon interrupted by the rebellion of Longinus and the Haitians, who, seizing the arms and money lodged by Zeno in a fort of Hastia, were enabled to raise and equip an army of 150,000 men. Comon, bishop of Apamea, in Syria, abandoning his flock, joined his countrymen, and became one of the ringleaders of the revolt. The emperor, however, soon collected a force, which, under the conduct of two of the most renowned generals of that age, John, the Scythian, and John, the Parthian, encountered the rebels in the vicinity of Ctyca, in Phrygia, cut off a great number of them, and obliged the rest to seek refuge among the inaccessible mountains of Hastia, where they maintained themselves for five years, notwithstanding the utmost efforts of the whole generals of the empire. In the following year the emperor, whose temper was naturally avaricious, devoted from the liberal plan with which he commenced his reign, and laid a heavy tax on the inhabitants of Constantinople, called evravias chryfothela, which, being unexpected, incurred the rage and detestation of the emperor's ministers, and dragged them through the chief streets of the city, together with those of the empress Ariadne, uttering very injurious invectives against her and Anslafius. This tumult was no sooner suppressed than it was succeeded by others equally mischievous and dangerous; in one of which the emperor narrowly escaped being murdered in the circuit by the populace, because he refused to release some prisoners who had been concerned in a riot. In 499 the Bulgarians invaded Thrace, and defeated the Romans; and in 502 the Persians entered Armenia with a powerful army, took Amida, pillaged the town, and put most of the inhabitants to the sword. In the mean time Anslafius dispatched a strong force against the enemy, which was defeated. However, in the following year, Amida was again besieged, and upon the conclusion of a truce between the Persians and Romans, the city was restored to the former, on condition of their paying to the king of Persia fifty talents. This truce between the two empires was concluded A.D. 505. About this time Monedo, a Goth, having settled with many of his countrymen, in some uninhabited places beyond the Danube, seized on a fortress called Fleria; and from hence, by frequent incursions into the Roman territories, continued to harass the subjects of the empire, and assumed the title of king. Anslafius dispatched against him Sabinianus, at the head of 10,000 chosen men; and this circumstance obliged Monedo to seek the succour of Theodore, the Gothic king...
of Italy, who had the year before reconquered Pannonia, and
recovered Scirium out of the hands of the Gothicus. Monte,
by this alliance with Theodoric, was enabled to defeat Sa-
biminus in a pitched battle, near Marquis, in Lower Dacia,
and forced him to take refuge in the castle of Nato. The con-
sequence of these hostilities was a misunderstanding be-
 tween Anaflatus and Theodoric. Such were the dangers that
threatened Constantineople and the adjacent country, that
Anaflatus was obliged to betray the impotence of his arms by
building a halver, called the long wall, and the wall of
Amphilas, of which the Byzantine historians make frequent
mention. This wall was distant from Constantineople about
40 miles, and extended about 60 miles from the Propontis to
the Euxine, including not only the metropolis, but the city of
Selymbria, and the neighbouring country, which was a
cultivated garden, with an incredible number of thatly
villas and hounts of pleasure, richly furnished and adorned.
It was 20 feet broad, and defended by towers at small dis-
tances from each other, by which means the inhabitants, upon
the slightest warning, had an opportunity of putting them-
theselves in a posture of defence, and of easily repelling the
barbarians. He likewise placed the city of Daras, a frontier
town towards Persia, to be repaired and fortified, in order to
prevent the Persians from invading the empire on that side.
The other difficulties with which Anaflatus struggled were
considerable, compared with those in which he was involved
by a religious war, the first that disgraced the Christian
name. The emperor, who was a zealous patron of the
doctrine of Eutyches, abolished the orthodox addition,"who
was crucified for us," that had been made by the devo-
tion of Antiuch to the "Trifgigion," i.e., three holy,
"Holy, holy, holy, Lord God of hosts," which was a hymn
used in public worship. This alteration occasioned a violent
tumult, in which many perfons lost their lives; and the
emperor was compelled to take refuge in his gallery, till the
orthodox patriarch, Macedonius, had pardoned and interceded
for him. Macedonius was afterwards banished, and upon his
exile the sedition was again renewed; the statues of the
emperor were broken, and his person was concealed in a suburb,
till, at the end of three days, he ventured to implore the
mercy of his subjects. Accordingly Anaflatus, without his
diadem, and in the posture of a supplicant, appeared on the
throne of the circus, and was happy to reconcile himself
with his people by the sacrifice of two unpopular minifters
who were condemned to the lions. These furious but tran-
sient seditions were encouraged by theuccfes of Vitalian,
one of the emperor's generals, who, expounding the cause of
Macedonius, and the other orthodox bishops, perfeeted
by Anaflatus, approached Constantineople with a numerous
army of Huns and Bulgarians, and threatened to depose the
emperor, if the banished bishops were not restored, and
the Eutychians expelled. As the emperor hesitated in comply-
ing with this demand, Vitalian, the champion of the catholic
faith, depopulated Thrace, besieged Constantineople, and ex-
terminated 65,000 of his fellow Christians, till at length he
obtained the recall of the bishops, the satisfaction of the
popes, and the establishment of the council of Chaleco.
In consequence of this treaty, which Anaflatus was compelled
to sign, A.D. 514, Vitalian withdrew from Constantineople,
and disbanded his troops. Pope Symmachus, it is said,
engaged in this quarrel, and, by excommunicating Anaflatus,
let the first example of the employment of spiritual thunder
against adversaries. Anaflatus, delivered from his fears, re-
newed his persecution of the catholics; but he did not long
survive the humiliating act to which he was obliged to sub-
mit. In the year 518, the 88th year of his age, and the
28th of his reign, he suddenly closed his life, being as much
hated and persecuted by his subjects in his latter years, as he
had been beloved and exalted in his earlier days. By the
Catholic historians he is charged with avarice and cruelty,
and almost all the crimes that could disgrace a sovereign;
but his want of orthodoxy, which, in their judgments, was
one of his greatest crimes, might possibly induce them to ex-
aggerate his other bad qualities. The vast treasure which he
possessed at his death was accumulated by the sale of public
offices, and by sharing with his governors the spoils of an
Anaflatus II., whose proper name was Artemius, was
advanced by the free voice of the senate and people, to the
throne of Constantineople, A.D. 713, from the low condi-
tion of a secretary to his predecessor Philippius, who had
been deposed.
He was a man of learning and prudence, and had been
from his youth employed with singular success in the man-
agement of public affairs. In the beginning of his reign he
appointed Leo, the Itaurian, a person of great military
experience, commander in chief of all his forces, and sent
him with a powerful army to the frontier of Syria, in order
to protect Asia Minor against the inroads of the Saracens.
He also prepared for defending their design of laying siege
to Constantineople by a naval armament; by repairing the
walls, by filling the public granaries, and by ordering those
citizens, who had not laid up provisions for three years, to
quit the city. When news was brought that the enemy's
fleet had failed to Phcenicia, he ordered his to assemble at
Rhodes; but the admiral by his endeavours to maintain strict
discipline,occasioned a mutiny, and lost his life. The fea-
men, dreading the punishment which they deferred, and
knowing that they could not avoid it, openly revolted, de-
clared Anaflatus unworthy of the empire, and obliged
Theodorus, a person of mean extraction, and receiver of
the revenue at Atradum, to accept of the purple.
Anaflatus, when he heard of this revolt, fled to Nice; and
Theodorus hastened to besiege Constantineople, which he
reduced after a defence, on the part of the garrison, for six
months. Anaflatus, being promis his life by the con-
queror, renounced all claim to the empire; and, assuming
the habit of a monk, was banished to Thessalonica, after he
had enjoyed the title of emperor about two years. In 719,
whilst Leo was emperor, Anaflatus quitted his retirement,
and induced the Bulgarians to acknowledge and support his
claim to the crown. With a numerous army of these barba-
rions he laid siege to Constantineople; but his followers,
being disappointed in their expectation of easily becoming
masters of the city, feized the unfortunate Anaflatus, and
delivered him up to the emperor, who put him and his ac-
Anaflatus, pope, succeeded Syricius in the papal chair,
A.D. 355. During his pontificate a dispute arose between
Jerome and Ruffinus, occasioned by the following circum-
stance. Ruffinus, being an admirer of Origen, had pub-
lished a Latin translation of his "Periarchon," or treatise
of principles, which was much read at Rome, and served to
delineate the distinguishing sentiments of this celebrated fa-
ther. Having published this translation, without any anti-
maderverion on the part of Syricius, he left Rome, and re-
turned to Aquileia, where he was presbyter. Upon the ele-
vation of Anaflatus, Marcellus, a Roman matron, complained
to the new pope of the prevalence of new doctrines, re-
quested his interposition for preventing the evil, and accused
Ruffimus
Rufinus, the author of the translation to which it was owing. Anastasius, for some time declined either proceeding against Rufinus, or continuing his translation; but at length Arnaud, in a new version of the work, undertook to prove that several opinions at Origen were heretical, and as such ought to be condemned by the church. He also inveighed against Rufinus, suggesting, that he had translated the work of Origen merely for the purpose of propagating the errors which it contained. A council was convened, which condemned the errors of Origen, and Origen himself as a heretic, and forbade all persons, under the jurisdiction of several of the bishops, who were assembled, either to read or to retain in their possession, any of his works. Origen being thus condemned as a heretic, about 150 years after his death, Anastasius, at the mitigation of Marcellus, and some of Jerome's friends, summoned Rufinus to Rome, and demanded an account of his faith. Rufinus sent a confession of his faith to Anastasius, but it was not satisfactory; and the pope was at first prevailed upon to separate himself from communion with him. Anastasius has no other claim to notice than that of being a zealous defender of the Catholic faith. He died in 402; and his epistle to John, bishop of Jerusalem, who had written to him in behalf of Rufinus, is extant. Fabr. Bib. Grec. lib. c. 35. § 8. Dupin's Ecc. Hist. vol. iii. p. 58. Bower's Lives of the popes, vol. i. p. 277, &c.

Anastasius II. pope, was the son of a Roman citizen, and succeeded Gelarius, A. D. 496. He was more peaceably disposed than either of his two predecessors, and was dehors of effecting a reconciliation between the see of Rome and that of Constantinople, which had for some time been at variance. With this view he wrote a humble and respectful letter to the emperor Anastasius, and sent two bishops, accompanied by Felix the patrician, as legates, to execute his purpose. Although the bishops were well received by the emperor; he chose to confer with Felix rather than with them; and he contrived to pervert him to sue his interest with the pope for reconciling the eastern and western churches, upon such terms as he thought proper to propose. The pope himself was disposed to acquiesce; and to allow the name of Acacius to remain in the Dityches, as well as to receive and sign the Henoticon; but this conciliation on his part gave great offence to the Roman clergy. The church of Alexandria, availing themselves of the peaceable disposition of the pope, sent deputies to Constantinople in order to negotiate a reconciliation with Rome. But these pacific measures were defeated by the premature death of Anastasius. Whilst the legates were on their return to Italy, and before they reached Rome, the pope died, A. D. 496; and this unpromising event was a great disappointment and mortification to Felix, who, depending on his inclination to peace, and the confidence reposed in him by the pope, had entertained hopes of soon restoring the ancient harmony between the east and west, and of being himself instrumental in accomplishing so desirable an object. The disposition and conduct of Anastasius, who was ready to sacrifice even the pretensions of his see to the welfare of the church, however laudable in themselves, were no recommendation to the honours that were conferred in that age of ignorance and bigotry. He was not thought worthy of a place in the calendar; and his memory has been asperated, as if he were an enemy to the Catholic faith; and his death, before he had completed two years of his pontificate, has been represented by Platina and others as a judgment from heaven. His letter to the emperor, and another to Clavis, the first Christian king of the Franks, congratulating him on his conversion to the Christian religion, are still extant in the Books of councils. Cave's Hist. Let. vol. i. p. 495. Fabr. Bib. Grec. lib. c. 35. § 8. Bower's Hist. Popes, vol. iii. p. 258, &c. Dupin, Ecc. Hist. vol. iv. p. 181.

Anastasius III. pope, was by birth a Roman, and succeeded Sergius, A. D. 911. This pope, at the request of Berengarius, king of Italy, sent many rich ornaments to the church of Pavia, and granted to the bishop of that city the use of a canopy, the privilege of riding a white horse, with the croziers carried before him, and of sitting in all councils at the pope's seat. He died in 913, and was buried in the Vatican. He is commended in his epitaph for the mildness of his government, his integrity, and the purity of his manners. He died nothing blame-worthy,fails Platina, which, in the popes of those days, was a subject of commendation. Bower, vol. v. p. 85.

Anastasius IV. pope, was a native Roman, of the name of Conrad, and succeeded Eugenius III. A. D. 1157. His temper was mild and peaceable; of which he gave evidence in his method of compromising a difference that had arisen in the last pontificate between the emperor Frederic and the Court of Rome. For this purpose he sent cardinal Gerhard into Germany, whose impertinent behaviour incurred the displeasure of the emperor, so that he was ordered to quit the country. The cardinal, it is said, died of grief in his way to Rome. This pope took no notice of the allarm, but yielded to the emperor the point in dispute. This conciliatory conduct, which might possibly have been the means of preventing the horrors of war, has been condemned by the advocates of the dignity of the papal see, as an instance of irresolution and putridness. Anastasius restored William, archbishop of York, who had been deposed by Eugenius, to his see; and in the same year he also inflicted a bull, confirming and enlarging the privileges of the Knights of the Hospital at Jerusalem, since known by the name of the Knights of Malta. In a great scarcity of corn, which happened during his pontificate, he manifested his humanity by liberally contributing to the relief and supply of the poor. After a Pontificate that lasted little more than a year, Anastasius died, A. D. 1154; and was buried in the church of the Lateran, in a tomb of porphyry, exquisitely wrought, in which had lain the body of St. Helena, the mother of the emperor Constantine. Ten letters of this pope are preserved in the Collections of Councils by Labbe and Harduin, and in du Chése's History of France. Fab. Bib. Grec. lib. c. 35. § 8. Bower's Hist. vol. vi. p. 75, &c.

Anastasius, anti-pope, was elected in 855 by the envoys of the emperors Lotharius and Lewis in opposition to Benedict III. ; but the bishops of Othii and Albano, alleging that he had been deposed in a council, refused to consecrate him; upon which the envoys abandoned Anastasius, and he was obliged to relinquish his pretensions. Bower's Hist. vol. iv. p. 265, &c.

Anastasius Sinait, a monk of Mount Sinai, lived in the sixth century, in the year 561 was promoted to the dignity of patriarch of Antioch, and died in 599. Evagrius represents him as a person eminently skilful in sacred literature, exemplary in his conduct, and particularly attentive to the duties of piety. He was the author of several works in Greek, which are still extant; such as "Omnes, or "A Guide in the Way against the Acropolys," printed in 410. at Ingolfstadt in 1666. "Quellen et Responiones de varii Argument in S. Scripturnm," numero 154; printed in Greek and Latin at Ingolfstadt in 1617, 410. "Anagogiarum Contemplationum in Hexameron, libri iii." or, "Mysteries Contemplations on the six Days' Creation," published...

Anastasius, Theodotius, was bishop of Antioch, and flourished in the sixth century. He expounded the opinions of a sect denominated Aphthartodorces, and on this account Julianus designed to depose him; but being prevented by death from executing his purpose, Julianus the younger banished him in 570, and he remained in exile twenty-three years. Mauritius restored him to his see in 593. He died in the year 599, and was succeeded by another Anastasius, who was killed in a tumult by the Jews in 609. This bishop of Antioch has left some sermons, and treatises on the Trinity, and other points of faith, which were published in Latin at Ingolstadt in 1616, 4to.; and also the “Annunciation of the Virgin Mary, and Transfiguration of Christ,” published in Greek and Latin, in the first volume of “Commeni. Auctarum,” fol. Paris, 1648. Fabr. Bib. Græc. lib. 5. c. 35. § 1. tom. ix. p. 312. p. 332.

Anastasia, the Librarian, was a Roman abbot and prebendary, and flourished in the ninth century. He had the charge of the Vatican Library under several popes; in 869 he assembled at the general council of Constantinople, and translated into Latin the acts of that council, and also the acts of the council of Nice, held in 787, which are still extant. To this translation he prefixed “A History of the Schism of Photius and the Council.” He also wrote, or compiled, the lives of the popes down to Nicholas I. continued by others, and published with the ecclesiastical history of Nicephorus Syncellus, and Theophanes, at Paris, in 1629, fol. An enlarged edition of this work has been since published by Bianchini, in four volumes folio, at Rome, in 1718. Anastasia was a learned man, and a tolerable writer. Cave’s Hist. Lit. vol. ii. p. 56. Fabr. Bib. Græc. lib. v. c. 35. § 8. tom. ix. p. 332.

Anastasia, St. in Geography, a small island near the coast of Eil Florida, south of Mallacoota inlet, where the river Mallacoota forms two islands of the same name at its mouth. St. Anastasia island is bounded on the north by St. Augustine’s bar. It has a quary of fine stone for building.

Anastasia, formed from ovata, referring, from its quality of surviving in water, in Botany, a genus of the tetracyclina fusculosa clausa and order, of the natural order, filiformis, or crustiformes, and the crustacea of Jullien; its characters are, that the calyx is a four-leaved and deciduous perianthium; leaves ovate, elong. convexe, erect and deciduous; the corolla is tetrapetalous and cruciform, the petals roundish, flat and spreading, with claws nearly as long as the calyx, but more spreading; the stamens have six filaments, staminate, of the length of the calyx, from erect spreading; anthers roundish; the pistillum has a bifid, very small germ, staminate style of the length of the stamens, and permanent, the stigma capitate; the pericarpium is a very short siliqua; partition ending in a staminate point, oblique and longer than the stile itself, the valves parallel, making a cell of the lower half, but standing out from the upper, rounded, convexe, gaping, and oblique, and hence having the form of a sheep’s hoof; the seeds are solitary and roundish. There are two species.

1. A. hierociontis, thalphi rota de hierico of Mor. Hist. rota hierociontis of Bauhin and Ray, &c. common anaftasia, or rota of Jericho, with leaves obtuse, spikis axillary and very short, stiliaceous and thorny. This plant grows naturally on the coasts of the Red Sea, in Palestine, and near Cairo, suddenly places; and was cultivated in Kew Garden by Tradescant in 1633. It has the epithet of thero or Marie given to it by the monks, who have superstitiously imagined that the flowers open on the night in which our Saviour was born. But the truth is, that the dry woody plant being set for some time in water, will dilate and open, so as to disclose the feed needles and feed. This has been done when the plants have been many years gathered; so that some curious persons prefer them in their repositories of curiosities, for the singularity of this property. 2. A. friana, bonis friana of Gardiner, maygrum rotatorium of Super. Zan and Pallas, thalphi, &c. of Bosc. Muif. rota hierociontis, similar of Baulin, Syrian anaftasia, with leaves acute, spikes longer than the leaf, stiliaceous ovate, beaked, and not at all biled. This is a native of Austria, Stiria, Carniola, Syria, and Sumatra, and was introduced in 1788 by M. Thouin. It flowers in May and June.

Culture.—These plants, being annual, can only be propagated by seeds, which rarely ripen in England, unless they be sown on a hot-bed in the Spring, and the plants afterwards put into pots, which should be plunged into another hot bed, in order to bring them forward. They will not perfect seeds unless the Summer is very hot and dry; but if they are kept in a frame, with free air in warm weather, they will flower in June, and the seeds will ripen in September. Martin’s Miller.

Anastasia, in Natural History, a species of verticilla, in the fifth order of Vermes, Infusoria. It is compound, with bell shaped flowers; foot-stalks feally and rigid. Linn. and Mill.

This is the second species of clustering polype described by Trembley. These polypes form a group resembling a clouther, or more properly an open flower; this flower or clouther is supported by a stem, which is affixed by its lower extremity to some of the aquatic plants, or extraneous bodies, that are found in the water; the upper extremity forms itself into eight or nine lateral branches perfectly similar to each other; these have also subordinate branches, whose collective form much resembles that of a leaf. Every one of these affemblinges is composed of one principal branch or nerve, which makes with the main stem of the clouther an angle somewhat greater than a right one; from both sides of this nerve the smaller lateral branches proceed; these are flatter the nearer their origin is to the principal branch.

At the extremity of the principal branch, and also of all the lateral ones, there is a polype or verticilla. There are others on both sides of the lateral twigs, but at different distances from their extremity. These polypes are all exceedingly small, and of a bell-like figure; near their mouth a quick motion may be discerned, though not with a sufficient dilitufness to convey an adequate idea of its caule; upon the branches of these clouthers are round bodies.

Every clouther has eight or nine of these branches or leaves; they do not all proceed from the same point, but the points from whence they set out are not far alander; each of these branches is bent a little inwards, so that all of them taken together form a kind of shallow cup. If the eye is placed right over the base of this cup, the appearance of the whole eight or nine branches is like that of a fan, with so many rays proceeding from the center. If the clouther is slightly touched, all the branches instantly fold up, and form a small round mass. The stem which supports the clouther contracts also at the same time, folding up like a workman’s measuring rule, that consists of three or four joints. This extraordinary affembling constitutes one organized whole, formed of a multitude of similar and particular ones. A new species of society, in which all the individuals are members of each other in the strictest sense, and all participate of the same life.

A few days after one of these clouthers is formed, small round
round bodies or bulbs may be perceived to protrude in several places from the body of the branch; these grow very fast, and arrive at their greatest growth in two or three days. The bulbs detach themselves from the branches out of which they spring, and go away, swimming till they can settle upon some habitation which they meet with in the water, and to which they affix themselves by a short pedicle; the bulbs are then round, only a little flattened on the under side, the pedicle continues to lengthen gradually for about twenty-four hours, during which time the bulbs also change their figure, and become nearly oval; there are in a cluster but few of these bulbs compared with the number of vorticelles, neither do all the bulbs come out at the same time. The bulb then divides lengthways into two smaller ones, but which are still much larger than the vorticelle themselves. It is not long before these are separated from the first, and thus form four bulbs on the same stalk; these again divide themselves and form eight, which again subdivide, and consequently make sixteen. They are all connected with the stalk by a proper pedicle, but they are not all of an equal size; the largest continue to divide, and the smallest begin to open, and take the bell-formed shape. Mr. Trembley observed from one round bulb in about twenty-four hours, by repeated divisions, one hundred and ten vorticelle to be formed. Vide Phil. Trans. Adams Microsc. &c. &c.

ANASTOMASIS, or Anastomosis, formed of an, through, and vena, month, in Anatomy, is sometimes used to express such aperture of the mouths of the vessels as lets out their contents.

ANASTOMASIS is more frequently used to denote the opening of two vessels into one another; or the union and juncture of the mouths of two vessels, whereby they come to communicate with the other.

Anastomosis take place in considerable number in the absorbing and circulating vessels of animals. For an account of their number, situation, and uses, the reader is referred to the articles Absorbing Vessels, Artery, Circumstances observable in the Ramification of, and Vessel, Circumstances observable in the Distribution of.

ANASTOMOSIS, in Botany, a species of Phalus.

ANASTOMOSIS, in Entomology, a species of Phalena of the bombyx tribe. Thorax reddish-brown; anterior wings, grey, with three whitish, anastomosing streaks. Limous.
The larva is brown, with white spots on the back, lateral line yellow, with a red dot on each ring; a bifid protuberance on the shoulders and tail; pupa black, with two red, longitudinal streaks; feeds on the willow.

ANASTOMOTICS, formed from anasomos, but, or Anastomotic medicinae, are, in a general sense, the same as apertures; but in a more special sense, the term denotes such as are fitted to open the extreme orifices of blood-vessels, so that the blood may circulate the more freely.

ANASTROUS, fætæs, in Aestivation, an appellation given to the dodécatomia, or the twelve portions of the eclipse which the signe passed anciently, but have been deserted by the prelection of the equinox.

ANASTROPHE, from an and strophe, I turn, in the Ancient Military Art, denotes the turn of a battalion to its former latton, after a turn or evolution either to the right or left. The anathrope stands opposite to the epistrophe.

ANASTROPHE also denotes a grammatical figure, whereby a preposition, which regularly ought to precede, is placed after its case, e. gr. "Saxa per et escopolus," for "per Saxa et escopolus."

ANASTROPHE, in Retorica, denotes a quaint inversion of the order of the words in a sentence, e. gr. "ut sitque posset ad quo expedita loqui," for "quo ad expedita loqui."

ANASUS, or ANUS, in Ancient Geography, now the

ANATHEMA, from an and theo, I lay up, in Antiquity, denotes a present offered to some god, and hung up in his temple.

Making presents to the gods was a custom even from the earliest times, either to pacify them when angry, or to obtain some future benefit, or as a grateful acknowledgement of some past favour. They consisted of crowns and garlands, garments, cups of gold, and other valuable metals, and any other things which conduced to the ornament, or to the enriching of the temples.

There were commonly termed anabaptiste, and sometimes antikleistus; from their being deposited in the temple, where they were sometimes laid on the floor, sometimes hung upon the walls, doors, pillars, or the roof, or any other conspicuous place. Sometimes the occasion of the dedication was inferred either upon the thing itself, or when the matter of that could not bear inscription, upon a tablet hung up with it.

When any perfum left his employment, or way of life, it was customary to dedicate the instruments belonging to it, as a grateful commemoration of the divine favour and protection. Thus in an ancient Greek epigram we find a fisherman makes a present of his nets to the nymphs of the sea. Shepherds hung up their pipe to Pan, or some of the country deities, as we find done by one in Tibullus. So Lais, decayed with age, dedicates her mirror to Venus. Pafanizes has left us a particular description of the anathemata, in the Delphian temple, which was the richest of any in Greece.

The term anathema also occurs in a like sense, applied to Christian offerings.

The anathemata, or ornaments of the ancient churches, are otherwise called in ecclesiastical writers donaria.

Such in particular were those called anathemata, answering to the votive tablets of the heathens. Also pictures, medallions, inscriptions, and at length images, statues, crucifixes, &c.

Cebos's beautiful tabulation of Human Life, is laid in the introduction to it, to have been among the anathemata, in the temple of Saturn.

ANATHEMA, in an Ecclesiastical sense, denotes an excommunication, attended with execrations and curses. In this sense the word is usually written in Greek anathema, to distinguish it from an offering to the gods, called anabaptiste; though it is certain several of the Greek fathers do not observe this distinction; but use anathema indiscriminately for both.

There are two kinds of anathemata; the one judicial, the other abjuratory.

The former can only be denounced by a council, a pope, bishop, or other qualified person; and differs from a simple excommunication in this, that an excommunication only prohibits the criminal from entering within the church, or from holding communion with the faithful, whereas an anathema cuts him off from the body, the society, and even the converse of the faithful, and delivers him over to the Devil.

The latter kind of anathema usually makes a part of the ceremony of Absolution; the convert being obliged to anathematize the hereby abjured.

The critics and commentators are divided about the manner wherein St. Paul wishes to be anathema for his brethren. Romans ch. ix. 2. See Accursed.

In ancient censures we meet with an extraordinary for-
ANATHO, or ANNAH, in Ancient Geography, a city of Mesopotamia, the actual residence of an Arabian Emir, was composed of two long streets, which included, within a natural fortification, a small island in the midst, and two fruitful spots on either side, of the Euphrates. It was situated on the south-east of Cirethum. The warlike inhabitants of Anatho showed a disposition to fly the march of a Roman emperor; till they were diverted from such fatal premonition by the mild exhortations of prince Hormidas, and the approaching terror of the fleet and army. They implored, and experienced, the clemency of Julian, who transplanted the people to an advantageous settlement near Chalae, in Syria, and admitted Pseudo, the governor, to an honourable rank in his service and friendship. See ANAN.

ANATHOTH, a city of Palestine, north-east of Jerusalem, and not far from it. This city had been given to the Levites, and was one of the cities of refuge. It belonged to the tribe of Benjamin; and was the birth-place of the prophet Jeremiah, and the inheritance of many of the Jewish pontiffs.

ANATHREPSIS, in Medicine, amounts much to the same with analepsis.

ANATICULA, a diminutive of anas, and used by the old Roman Authors, as a term of fondness, to express the passion of love. There is another of the same kind from a different bird, palumbus.

My little duck, my little dove, were the most endearing terms the lovers of those times could use; nor was this the custom of the Romans only, but the Greeks, as far back as Arilophanes, have it.

ANATIFERA, in Zoology, a species of lepas, called bernacle, that adheres by means of its membranous pedicle to the bottoms of ships, timber, and other substances floating in the water. The shell is compressed, and consists of five valves, is smooth, and affixed to a pedicle. Linnaeus.

This curious marine production consists of many unequal membranous branches, or arms, at the ends of which the shells are disposed in an irregular manner; the larger clustering with the smaller in groups, and forming bunches of various sizes. The branches are of a fine red: the shells of a bluish violet. The animal within is a triton, and is furnished with many cirribi, or tentacula, with which it takes its food. These tentacula are pelticated like feathers, and hang out of the shells when open. In the 16th century they were in fact supposed to be feathers, and hence arose the whimsical belief that these shells produced geese, of the species called bernacles. (Anna Erythropolis of Linnaeus.) Nor was this a vulgar opinion only; it was sanctioned by the grave details of naturalists of that time, and particularly by Gerard, whose observations are worthy of notice.

"What our eyes have seen, and hands have touched, we shall declare. There is a small island in Lancashire, called the isle of Foulere, wherein are found the broken pieces of old and bruised ships, some whereof have been cast thither by shipwreck, and also the trunks and branches of old and rotten trees, call up there likewise; whereon is found a certaine pine, or froth, that, in time breedeth unto certaine shells, in shape like those of the muskell, but sharper pointed, and of a whitish colour, wherein is contained a thing in form like a lace of fife, finely woven as it were together, of a whitish colour; one end whereof is fastened into the inside of the shell, even as the fifth of oysters and mussels are; the other end is made fast unto the belly of a rude maffe, or lumpe, which in time commeth to the shape and form of a bird. When it is perfectly formed, the shell gapeth open, and the first thing that appeareth is the foresaid lace or fibling; next come the legs of the bird, hanging out, and as it groweth greater it openeth the shell by degrees, till at length it is all come forth, and hangeth only by the bill; in short space after it cometh to full maturitie, and fallith into the sea, where it gathereth feathers, and groweth to fowle bigger than a mallard, and leffer than a goose; having blacke legs and bill or beak; and feathers blace and white, spotted in such manner as is our magpie, called in some places..."
places a pie-annet, which the people of Lancashire call by no other name than a tree goose; which place aboved, and all those parts adjoining do so much abound therewith, that one of the best is bought for three-pence. For the truth hereof, if any doubts, may it please them to remove unto me, and I shall institute them by the tellamore of good vituailles," Gerard's Herbal.—Vide Donov. Brit. Shells, &c.

ANATII. in Ancient Geography, a people of Gallia Narbonensis, mentioned by Pliny. Their situation is disputed. Martin says, that they were situated to the left of the mouth of the Rhone, near the site of the lake called Sugmum Tauri, and he supposes that they were the same with the Atlantus of Avienus. Some authors have inferred from an inscrption of questionable authority, that their capital was Hercules. M. d'Anville places them at the mouth of the Rhone, more to the right than to the left.

ANATINA, in Conchology, a species of Mya. Shell globular, brownish white, and pellucid; primary tooth of the hinge prominent and rounded. Gmelin. This shell is found on the shores of Guinea, and other parts of Africa, and bears young affinity to Solen anatina. It is marked with streaked lines, that intersect each other.

ANATINA, is likewise a species of Ostrea, that inhabits the Nicobar islands. The shell is pellucid, lamel-lated and laterally incurred. Gmelin. It is thin and fragile, and variegated with white and violet, and about three inches in length, including the incurvature, which is nearly half of that length. From a fancied resemblance of this shell to a duck when fitting it has acquired the specific name anatina.

ANATINUS, in Conchology, a species of Solen. The shell is ovate, membraneous, and covered with pile or soft hairs; a hooked rib at the hinge. This species is found on the sandy shores of the Indian ocean, and is named by Rumphius rodrum anatias. It is pellucid, white, and very thin; one end rounded, the other gaping. Tooth in both valves of the figure of an ear-picker. Gmelin.

ANATINUS, is likewise a species of Mytilus, of an oval shape, somewhat compressed fragile, with a membraneous margin, and decorated beaks. Gmelin. This species has been frequently confounded with Mytilus cygnecus; from which it differs in several particulars. It is very common in the rivers of England, and is known by the name of duck or small horse mussels. Vide Donov. Brit. Shells, pl. 113.

ANATIS, in Ancient Geography, a river, which, according to Pliny, belonged to Mauritania Tingitana.

ANATIS, in Entomology, a species of Pediculus that infests the wild duck. It is whitish; first segment of the thorax orbicular, truncated on each side, the other and the abdomen long and narrow. Scharneck.

ANATIS, in Natural History, a species of Ascaris, of the order Intestina in the Vermes class, that is found in the intestines of the wild duck, (anas boschas). It is from four "six inches in length, and is viviparous. The specific character, according to Gmelin, is, white, posterior part flatfish.

ANATIS is also the specific name of another creature that is found in the intestines of the velvet duck. The body is scarlet, its form ovate, thorax and proboscis covered with hooked points, and it has a long smooth intermediate neck. Gmelin. This belongs to the genus echinorhynchus, in the order intestina and Vermes class.

ANATIS is likewise the specific name of a third creature of the order of the intestina in the class of Vermes. This is Fasciola ANATIS of Gmelin. The body is reddish, and of a roundish form, with a single pore. This kind is found in the intestines of the domestic duck. It is small, somewhat pellucid, and uniformly white, the forepart truncated and triangular, behind roundish, intestines long and blackish.

This is ceculus considericus of Bloch, and hirudo falcularia of Mull. Z. J. Dan.

ANATOCISM, ANATOCISMUS, an furious contract, wherein the interest arising from the principal sum are added to the principal itself, and interest exacted upon the whole. The word is originally Greek, but used by Cicero in Latin; whence it has descended into most other languages. It comes from the proposition ana, which in composition signifies repetition or duplication, and the suffix, injury.

Anatocism is what we properly call interest upon interest, or compound interest.

This is the word kind of injury, and has been severely condemned by the Roman law, as well as by the common laws of most other countries. See Interest.

ANATOLIA, in Geography, a province of Turkey, in Asia. See Anatolia.

ANATOLIUS, in Biography, patriarch of Constantinople, succeeded Eulian in the year 449. Before his entrance to this dignity, he favoured the Eutychians; but after the accession of Marcian, he attached himself to the party, which he patronized, and which held the orthodox faith of two natures in Christ, and thus ingratiated himself both with the emperor and with pope Leo. Whilst he was supported by the imperial power, he maintained a vigorous contest with Leo, for the equality of the two churches of Rome and Constantinople, but when Marcian seemed to be inclined to allow to the see of Rome the supremacy in the church, he acquiesced. In order farther to engage Leo's favour, he called a council at Constantinople, which denounced an anathema against Nestorius and Eutyches; and then sent deputies to the pope to affume him of the purity of his own faith. He afterwards concurred with the emperor Marcian and the pope in hostile measures against those who did not openly professed the doctrine of the church. Upon the whole, Anatolius seems to have been a time-serving ecclesiastic, whose character claims no commendation. Duspin's Eccl. Hist. vol. iii. p. 228.

ANATOLIUS, bishop of Laodicea, in Syria, was a native of Alexandria, flourished under the emperors Probus and Carus, and succeeded Eusebius about the year 270. He was the most eminent prelom of his time, for his acquaintance with philosophy and the Greek literature, and for his skill in arithmetic, geometry, astronomy, grammar, rhetoric, and logic. His distinguished qualifications recommended him to the citizens of Alexandria, and at their request he is said to have set up a school for the Aristotelian philosophy. The tenets of the Peripatetic sect were the basis of his system, and with them he incorporated other doctrines, both Pagan and Christian, thus forming a new school, in which Aristotel was the chief matter. Some have doubted whether he actually complied with the request of the Alexandrians, and set up such a school; however this be, none of his commentaries upon Aristotel are extant, and, therefore, the particular manner in which he philosophized is unknown. Whether he was a native Christian or a convert from paganism, is not certain; but he was undoubtedly a Christian long before he became bishop of Laodicea, for he was upon terms of intimate friendship with Eusebius, his predecessor in that see, about the year 265, when Bruchium, or Pylrichium, one of the quarters of the city of Alexandria, in which was the citadel, was besieged. A circumstance occurred on this occasion, which reflects peculiar honour on his character. See Alexandria, Eusebius.
Eusebius says of him, that with universal consent he had pre-eminence above all the magistrates or senators of Alexandria, that were in Alexandria. After this he left Alexandria, and went into Syria; and he was ordained bishop by Theoctistus, bishop of Caesarea, designated by him for his successor, and actually appointed his colleague; but in his way to a council at Antioch, held by the Christian brethren upon the concerns of Paul of Samo- nate, he was detained at Laodicea, and appointed bishop of that city. Anatolius appears to have been a distinguished ornament of the Christian church; and though he did not write many books, yet his eloquence and extensive knowledge and learning are sufficiently manifest in those that are extant. His work on "Ecclesiasticus," called "The Pseudo-Canon," is cited by Eusebius; and an ancient Latin version of it, said to be Räfumus's, was published by Augustinus Bucerus, in folio, at Antwerp, in 1634. Of his ten books of "Institutes of Arithmetic," extracts are preferred in a collection, entitled "Theologumena Arithmetica." Some fragments of his philosophical writings are collected by Fabrianus, from which it appears, that, after the publication of his treatises on physics and mathematics, he made mathematical learning subservient to philosophy. This learned Alex- andrian concurred with other Christians, in a high respect for the scriptures of the Old and New Testament. The time and manner of his death are not certainly known; but some have supposed that he died a martyr. Enseb. Hist. Eccl. lib. vii. c. 32. p. 284. ed. Vales. Cave's His. I., vol. i. p. 136. Fabr. Lib. Gr. lib. iii. c. 10. tom. ii. p. 275—278. Brucker's Hist. Phil. by Enfield, vol. ii. p. 306. Lardner's Works, vol. iii. p. 265—269.

Fabrianus (B. G. lib. Gr. lib. vii. tom. v. p. 277.) has mentioned several other works of the same name, which ought to be distinguished from Anatolius, of whom we have given an account. Cave also (ubi supra) shows, that this Anatolius is different from him, whom Eusebius mentions as master of Jamblichus; though they are confounded by Valesius, and his opinion has been approved by Balfage. Anatolius, of Berytus, in Phoenicia, was a man of great learning, good judgment, and much candour. He was a faithful subject and able officer, under the emperor Constantius, being prefect of Illyricum, from the year 358 to the time of his death in 360. Photius, speaking of his work concerning agriculture, says, that it is a collection out of several writers upon the same subject, such as Democritus, Aetius, and Athenaeus, Perseus, Apuleius, Florus, Valens, Leon, and Pamphilius, and also from the paradoxes of Diophanes. The work consists of 12 books or sections. It contains, says Photius, many useful directions for agriculture and husbandmen, and may be reckoned one of the best books written upon the subject. There are infested at the same time many strange and incredible things, favouring of the error of Gentilism: but he adds, a pious hus- bandman may let those things alone, and forget only what is useful. Anatolius is highly commended for his integrity and eloquence, for his knowledge of the laws, and for his patronage of learning. Lardner's Works, vol. ix. p. 8—11.

ANATOMY. The word signifies simply dissection, yet there are usually comprehended under this term all those artifices by which the structure of animal bodies is developed and exhibited. As a science, anatomy must be admitted to be of the highest and most important; and while other sciences lead us abroad in pursuit of knowledge, in this we are engaged at home, in the study of our own being, in the means by which we live, and move, and have our being. Anatomy also furnishes us with knowledge which teaches how to preserve health, to correct disease, and rectify the effects of those injurious to which we are inevitably exposed.

Anatomy is divided into human and comparative; in the former our references are restricted to our own bodies; but in the latter, we may range over the whole field of animated nature.

The anatomical description of the body is technically arranged under the following heads, to which we refer the reader for more particular information.

1st. Osteology, or the description of the skeleton, shape, and parts of the bones.

20d. Syneciology, or the description of their connection by ligaments, and the structure of the joints.

3d. Myology, or a description of the moving powers or muscles.

4th. Angiology, or a description of the vessels engaged in nourishing the body, in absorption, and in the removal of superfluous parts.

5th. Aenology, or a description of the glands, in which various liquids are separated or prepared from the blood.

6th. Splanchnology, or a description of the different bowels, which serve various and different purposes in the animal economy.

7th. Neurology, under which title the brain, the nerves, and organs of sense must be comprehended.

This arrangement, which is not very well adapted to the purposes of anatomical description, is, however, not at all suited to the views of physiology; for this subject, therefore, we must refer the reader to another series of articles. The functions carried on in animals, in the explanation of which physiology consists, may be thus arranged.

The terms, however, by which they are distinguished, do not exactly express the nature of each function, as will be shown more at large under their respective titles.

1st. Digestion, or the conversion of extraneous matter into the nature of their own bodies.

2d. Circulation, or the distribution of the converted matter to every part of the animal for its repair and augmentation. The proofs is named circulation, from the mode in which it is carried on in the generality of animals.

3d. Secretion, or the separation and deposition of the particles composing the structure of animals and vegetables, as well as various substances which they produce from the circulating fluids.

4th. Absorption, by which external matter is imbied, and that which is deposited by secretion more or less removed.

5th. Respiration, or the exposure of the nutritive fluid to the action of the atmosphere.

6th. Irritability, or the action which is exerted in carrying on the circulation, secretion, and absorption, and which is more strikingly manifested in the accidental actions of the muscular powers.

7th. Sensation, by which animals become conscious of the existence of external objects, and also of their own.

8th. Generation, by which new beings, similar to the parents, are formed and produced.

Most of these powers are observable in vegetables.

ANATOMY. History of: The writers on the history of medical science, and of anatomy, as forming a part of it, generally divide it into four portions. The first contains the state of these sciences previous to the life of Hippocrates, who was born about 460 years before the Christian era; the second contains an account of the additions and alterations that were made before, and by the labours of Galen, who lived about one hundred and fifty years
years after the birth of Christ. The third part comprehends the declension of these sciences, with learning in general, in the sixth and seventh centuries, and their revival in the fourteenth and fifteenth, to their more perfect establishment by Harvey’s discovery of the circulation of the blood. The fourth part contains an account of the more perfect state of these sciences from Harvey to the present time. The study of investigating the structure of the body seems so natural a kind of curiosity, and so intimately connected with self-preservation, that we cannot wonder if a considerable portion of such knowledge should be acquired, even where the opportunities of research may have been very limited and inadequate. Onai, who was brought by Capt. Cook from Owhyhee, when he surveyed Dr. Hunter’s Museum, manifested considerable acquaintance with the subjects before him, and a great desire of further information. The slaughter of animals for food, the preparation of them for sacrifice, and accidental opportunities of examining the human skeleton, &c. were the first sources of anatomical information.

Amongst the Egyptians, the most ancient nation, of whose manners we have authentic memoirs, the rites practiced in honour of the dead, by embalming their bodies, would familiarize the people to anatomical inquiries. The custom of carrying about, at their seasts, a skeleton, left their guests, in the midst of feasting and merriment, should forget the frail tenure of life and its enjoyments, seems a sufficient proof of this affection. It is also related, that one of their kings left writings on anatomy.

Our accounts of this science are, however, very slight and imperfect, till it was cultivated by the enlightened inhabitants of Greece. If the pursuit of anatomical knowledge is so natural and important as to interest even barbarous nations, it was likely to be professed with greater ardour and success as knowledge increased, and the powers of the mind in obtaining it began strengthened by exertion. At the time of Homer the Grecians seem to have possessed much general anatomical knowledge, as the writings of that poet evince. We read, that the stone, which Diomed threw at Ajax, not only crushed the bone of his thigh, but also tore the ligaments of the acetabulum. Merion was wounded in one of the large veins, which return the blood to the heart, known to anatomists by the name of vena cava; and Ulysses meditated to wound the Cyclops just where the liver adheres to the diaphragm. Anatomical facts were collected, and the physiology of animals investigated by the philosophers of Greece, who taught their subjects, as well as other branches of science, at the philosophical schools of Rhodes, Cos, Cnidus, Cyrene, and Crotona. The first dissection on record, is one in which Democritus, of Abdera, was engaged, in order to ascertain the sources and course of the bile. It is natural to suppose that anatomical and medical knowledge would be hereditary in families; the father would instruct the son how to explore the structure of animals by dissection, and the son would communicate his knowledge to his children. Thus would medical science be retained and augmented in such families. It was the case in the family of Hippocrates, who was said to be the fourteenth descendant from Eileanus. In the eightieth Olympiad, about 460 years before Christ, Hippocrates formed medicine into a distinct science, and collected, arranged, and published all the anatomical and medical information which mankind possessed. Anatomical knowledge was considerable for the age in which he lived, and it has been disputed whether he dissected human subjects; but if he did, the number must have been very small, his anatomy seeming to be of that kind and extent which the contemplation of the human skeleton, and the dissection of brutes, would naturally produce.

No important additional knowledge of anatomy was obtained, till the formation of a medical school at Alexandria, in Egypt, where the dissection of human bodies was patronized by the descendents of Alexander. Here Herophilus and Erasistratus flourished about 200 years before the birth of Christ. They seem to have been accurate dissectionists, and some minute parts of the body are still named after them as discoverers. Their writings have been lost, and it is chiefly Galen who has made us acquainted with their labours and their merits. The Alexandrian school long flourished, and medical men referred to it for a knowledge of anatomy, which they could obtain in no other place. Here even Galen received his education. It is quite unnecessary to notice the important anatomical remarks made in the writings of the Roman authors before or after the time of Galen.

Galen, however, greatly devalues our attention and praise; not merely because he collected and arranged all the then acquired information, but because he was also an indefatigable dissectionist, and considerably enlarged the limits of anatomical knowledge. He also investigated physiology by experiments, of which it may be right to mention one instance: he refuted the opinions of the Alexandrian anatomists, that the arteries were tubes, distributing air throughout the body. By laying bare one of these vessels in a living animal, tying it in two places, and opening it between the ligatures, he ascertained that it contained blood and nothing else. He therefore concluded, that both veins and arteries served the same purpose, that of distributing blood for the supply of the body, but that the arterial blood contained more air than the purple blood of the veins. In an inliry of this kind it seems right to mention the effects of anatomical studies on the mind of Galen: after contemplating the structure of the hand and foot, and their adaptation to their different functions, he breaks out into an apostrophe, which has been much admired, and in which he is said to have excelled any ancient in pointing out the nature, attributes, and proper worship of the Deity. In explaining these things, he says: “I cleave myself as composing a solemn hymn to the author of our bodily frame, and in this, I think, there is more true piety than in sacrificing to him heart-crews of oxen, or burnt-offerings of the most costly perfumes: for I first endeavoured to know him myself, and afterwards to shew him to others, to inform them how great is his wisdom, his virtue, his goodness.” There was no addition made to anatomy worth remarking by the writers who succeeded Galen: the science gradually diminished, and afterwards seemed almost lost amongst the Arabs.

The first Arabian physicians appear to have employed themselves in compiling syllums from the Grecian writers, and the later ones in copying from each other. Medicine certainly declined amongst them, and their religious notions made them almost entirely neglect anatomy. In the tenth century Constantine, a native of Bagdat, brought with him the Arabian doctrines on medicine to the Salernitan school in Sicily; and here anatomy began slowly to revive. In the fourteenth century Mundinus dissected human bodies in Italy, and by degrees other nations acquired that useful knowledge.

Anatomical knowledge, on its revival in Europe, was greatly promoted by the exertions of eminent painters, who were early and accurate dissectors, correctly delineating the mufcles, after they had removed the integuments which covered them. Raphael, Titian, and Leonardo da Vinci were famous for their anatomical skill, which is indeed sufficiently evident in their paintings. A number of sketches, designed
ANATOMY.

as studies by Leonardo da Vinci, are still extant in his Majesty's collection of drawings, and are spoken of by Dr. Hunter in the most encomiastic terms. Albert Durer, who also is ranked by Hailer among the reformers of anatomy, published many plates representing the proportions and gestures of the human form and countenance.

When the Turks had subdued Greece, the inhabitants fled for safety to the western nations of Europe, bringing with them the Grecian authors on medicine, and translating them; which works the invention of printing, that happened about the same time, greatly contributed to diffuse throughout Europe. People had now an opportunity of becoming acquainted with the writings of Galen and the ancients, and, by these means, of arriving at the source of that knowledge which they had hitherto obtained only through the channel of the Arabian physicians. The superiority of the former was soon discovered, and the opinions of the Grecian writers were confidered, even in anatomy, as unimpeachable.

In the middle of the sixteenth century several eminent anatomists flourished, particularly Sylvius and Vesalius, Fallopian and Eulachius. Sylvius taught anatomy in Paris in 1532. Vesalius first advised anatomists to inject coloured fluids into the vessels of the body, in order to facilitate the labour of minutely tracing them. Whilst he was a young man in college, he pursued anatomical inquiries with great ardour and assiduity, and published some of his discoveries before he was twenty-five years of age, and even books on the anatomy of the human body before he was twenty-nine, A. D. 1542. These books contain great discoveries, and, in many circumstances, correct the ancients. But although they have entitled their authors to the gratitude of posterity, they procured to him scarcely any thing but animosity from his contemporaries. At that time the authority of Galen was held in high veneration; but when Vesalius exposed his errors, the hatred of all seemed turned against him. People could not bear to be fat right by to young a man, and even Sylvius denounced perpetual enmity against him. But knowledge was increased by these contentions, all parties were obliged to refer for the materials and support of controversy, to the book of nature, which they could not consult without receiving instruction. Even Vesalius was detected, in some instances, in the error with which he charged Galen; that of describing the anatomical structure of the human body from the dissections of brutes. In 1561 Fallopian, in Italy, published his Observationes Anatomicae; he was an indefatigable anatomist, and made great discoveries. About the same time Eulachius made himself conspicuous eminently by promoting anatomical knowledge. He seemed calculated for public investigations; he drew many figures of the human body, and engraved his own plates, the accuracy of which cannot fail of exciting surprize in an anatomist of the present day. When the labours of these eminent men had, as it were, smoothed the path, anatomy was taught with a moderate degree of correctness and minuteness in the different schools of Europe.

Shortly after, as Hailer has observed, the different nations being engaged in war, the fame attention was not paid to public institutions and dissections. Anatomists had therefore recourse to the examination of the bodies of brutes, from which they derived many important discoveries.

In the year 1628 Harvey published his discovery of the circulation of the blood. The principal facts relating to this subject were known before his time; it remained for him to reject the specious conjectures then maintained concerning the blood's motion, and to examine the truth of those facts which were then known, and by experiments to discover those which remained to be detected. This he did, and thereby rendered his name immortal. His doctrines were at first opposed; but when they could no longer be contended against, the merit of the discovery was assigned to former anatomists.

It seems proper in this place, to review the several steps which were made in the investigation of this important subject. Hippocrates believed that all the blood is communicated with each other, and that the blood underwent a kind of flux and reflux from and to the heart, like the ebbing and flowing of the sea; and he mentions the throbbing of the temporal arteries, as an evidence of this fact. The anatomists at Alexandria adopted a wrong, but ingenious opinion; as they found the arteries empty, and the veins containing blood, in their dissections, they imagined that the former were tubes for the distribution of air, and gave them that name which they have borne ever since; and that the veins were the only channels for the blood. The heart of man, consisting of two sets of cavities not communicating with each other, and its connection with the lungs, were to them delusive circumstances, and seemed to favour their opinions. It is true they sometimes found blood in the arteries, and in the left cavities of the heart, but then they believed that the air or spirit had escaped, and that the blood had oozed through the tubes of these air vessels, and supplied its place. Galen, as has been said, refuted this opinion by experiment, and ascertained that blood flowed both by the arteries and the veins, though he knew not then its natural course.

On the revival of anatomy in Europe, the pulmonary circulation was known to many eminent men. The valves at the mouth of the pulmonary artery proved the course which the blood must take in that vessel, and it seemed natural to follow, that it must return to the pulmonary veins. This appeared to be the case to Realdus Columbus, Michael Servetus, and the celebrated Sarpi. But when Vesalius afterwards examined the subject of the blood vessels, we can only attribute his failure in discovering the truth of the circulation to his mind being more directed to expose the errors of Galen, than to a candid examination of the subject. Fabricius ab Aquapendente, the preceptor of our famous Harvey, particularly described the valves of the veins, the mechanism of which would absolutely prevent the blood from flowing in those vessels towards the extremities. When Harvey returned from his studies in Italy, his attention being excited to the subject, he began those experiments, by which he learned and demonstrated the fact of the circulation. Harvey's first proposition of the subject impresses conviction so strongly on the mind, that we are left in perfect astonishment, that a circumstance so luminously evident should so long remain unobserved. It must be granted, that the heart projects about two ounces of blood into the aorta at every pulse; what, then, it may be asked, becomes of this large quantity of blood, unless it circulates? It must be granted, that the heart receives that quantity prior to every pulse. From whence is it received, unless the blood circulates? Harvey tied an artery, and the corresponding vein received no blood: he tied a vein and all its branches, and those of the corresponding artery were choaked with blood, even to the entire obstruction of circulation and motion. But Harvey was not acquainted with the direct communication which exists between these sylphs of vessels. He imagined that the blood transpired from the arteries into the veins through a spongy, or parenchymatous substance. Much yet remained to be ascertained by microscopical observations, and subtle anatomical injections and dissections.

In 1624, a little before the publication of the circulation, the lattal absorbents of the intestines were discovered.
covered by Aselli; and shortly afterwards, the lymphatic or general aborbing ducts of the body were brought into notice by Rudbeck and Bartholin. In 1672, Peucot published his discovery of the trunk of this system of vessels, by which all the matter absorbed from every part of the body, as well as that which was given by the intestines, is poured into the left subclavian vein. See the Article Absorbing Vessels.) Swammerdam, about the year 1662, taught anatomists to site walled infections, which, hardening when cold, enable us to trace and examine the intertussure of minute vessels with certainty and exactness. Shortly after, in the art of injecting and making anatomical preparations, Ruyfch, who was professor at Amsterdam, particularly excelled; and by the anatomical instruments which he invented, he was enabled to develop the vascular structure of the body, with a degree of minuteness and exactness hardly credible.

Malmigh, a great anatomist and professor at Meffina and Bononia, in 1666, brought very ingenious and clear ideas respecting secretion. He believed that the minute arteries poured a liquor into little cells contained in glands, from which it passed off by other tubes, called excretory ducts. Ruyfch denied the existence of cells, and affirmed, that the secretory and excretory vessels were continuations of the same tube. These eminent men had each numerous partizans, but the opinion of Ruyfch, which is most simple, and drawn from accurate observations, is now considered as ascertained. Ruyfch also contributed to our knowledge of the absorbing system, by particularly describing the structure of its vessels, and Nick had no inconceivable share of merit on the same account. Leuwenhoek, who greatly promoted anatomy, not merely by his own microscopical observations, but by showing what important discoveries might be made by the microscope, saw the circulation in the transparent parts of fish and amphibia, and thus was the knowledge of the circulation perfected. By these discoveries much light is thrown on the animal economy; and we are enabled clearly to discern many circumstances which before either escaped observation, or were imperfectly seen. By the discovery of the circulation we see the truth of the scriptural expression, that in the blood is the life of an animal; for from this vital fluid every part is formed and maintained. By the discovery of the absorbers which we perceive how the blood itself is supplied, from the food, which is converted into a milky fluid, by the digestive organs; and how the old particles of our bodies, which are no longer fit to remain in it, are removed and conveyed into the blood, to be eliminated by the excretory organs.

When anatomy had thus become a clear and distinct science, it was inculcated and taught, in the different nations of Europe, by numerous professors, with a zeal and industry highly honourable to themselves and useful to mankind. It would occupy a volume to relate their labours and discoveries; we must restrict ourselves to mention only the names of the most eminent, and the principal subjects, which engaged their attention. The celebrated Harvey led the way in investigating one of the most curious processes in the animal economy, that is, the procreation of the species. Leuwenhoek and Buffon observing certain germs of microscopical animalculces in the seminal fluid, formed rather wild speculations respecting them, which, however, considerably excited the public attention. De Graaf, in 1672, was the proposer of the most rational opinion on this subject. In viviparous animals he shewed the existence of minute ovules formed in the ovaries, which, when fecundated, passed through the fallopian trumpet into the uterus, and there grow to maturity; the late experiments of Spallanzani, in Italy, and some in this country, seem to have confirmed his opinion, and proved that the female of almost every species prepares an ovum, which contains parts, which are, as it were, animated, and set in motion by the semen of the male. As a prosecution of the history of the same subject, we may mention, that Dr. Hunter in this country, has given a most complete history, with beautiful explanatory engravings, of the growth of the human ovum, and of the changes which the uterus undergoes after the ovum has been received into that cavity.

The more conspicuous parts of the body, the bones and the muscles, have been most accurately described and delineated; the former by Albinus, Chelfelden, and Sue; the latter by Albinius and Cowper. Albinus, in a minute anatomy, also describes the highest parts. In 1672, Diderot, professor at Utrecht, published a system of anatomy; and in 1711, Winslow published a very excellent and accurate work of the same kind in Paris, which long served as a kind of text book for students. But when Albinus and Haller had greatly simplified the description of the body, and improved the knowledge of its minute structure, some other systematic work became necessary, but none for a long time appeared.

In the mean while Haller published, at Gottingen, in 1743, his Icones Anatomicae, with a view to supply the deficiencies and correct the errors of Winslow. The description of the arteries particularly deserves our praise and gratitude. Professor Wathen, of Berlin, has, with equal, or even superior diligence, traced the distribution of the most important nerves, and published splendid representations of them; and lately Meffeni has given to the public a most elaborate and complete account, with elegant plates, of the absorbing vessels. Haller not only promoted anatomical knowledge by his accurate dissections, but discovered and established physiological truths by experiments made on living animals. In like manner Mr. John Hunter pursued his enquiries; he was an accurate and minute dissector, a patient experimentalist; and in his researches surveyed the whole field of animated nature. To him we owe in anatomy the definition of the teftis, and the natural history of the teeth; by him physiology has been greatly promoted, and the structure and economy of animals displayed and explained. In Germany the brain has been examined, and the nerves traced with the most judicious attention; and of late Mr. Da'Azry, in France, an anatomist equally comprehensive and minute, has published representations of the brain, which are allowed to exceed all others. Dr. Monro, in our country, has also published on these subjects. Some anatomists seem to have directed their attention chiefly to the investigation of some single organ. Zinn has examined and explained the structure of the eye with surprising minuteness and accuracy. Cotumin, Meckel, and Scarpa, the ear; and the latter has also paid attention to the organ of the smelling sense. Of late some excellent systems of anatomy have been published by Sabatier, in France, and Soemmering and Hildebrand, in Germany.

Morgagni, the pupil of Valdivia, professor of anatomy in Padua, who had very extensive opportunities of observation, and who much improved anatomy in his old age, in the year 1761 published the result of his observations De Sedibus & Causis Morborum per Anatomiam Indagatis, a work of the greatest utility. Doctor Baillie has of late, in this country, professed the same subject, though in a different manner. He has published on the morbid anatomy of the body, and illustrated his descriptions by many elegant, expressive, and accurate plates; the prosecution of this subject promises the greatest advantages.

We have thus cursorily mentioned the principal subjects, in which the most eminent anatomists have been engaged. The names and employments of numbers of men of high
A N A T O M Y.

defect have, however, been omitted; indeed, they could not be properly noticed unless this article were of itself to make a volume. Chronological order has been much treasured against, and we therefore return to mention the most remarkable anatomists, in a series, according to the time in which they lived. As it is difficult to adjust their precedence in this respect, we shall rely on the authority of Haller, whose knowledge and judgment will not perhaps be called in question. He considers Bene¡dictus, Berengarius Carpen¡us, Nicolaus Maffa, Sylvius, Velaffus, Servetus, and Columbus, as the chief reformers of anatomy, whose writings are dated from the beginning to the middle of the sixteenth century. After the reformation of anatomy, the schools in Italy particularly excelled, and most anatomists received their education in them. From amongst the most eminent of the Italian school we may select the names of Falle¡us, Eufalchius, Aurantius, Ccafartius, Varolius, PlanTER, Caesar Balbus, Aldrovandus, Casserius, Fabricius ab Aquapendente, Risbamus, Hoffman, and Spigelius, whose writings extend from the middle to the conclusion of the sixteenth century.

The beginning of the 17th century the dissection of human bodies began to decline in the Italian schools, and more attention was paid to comparative anatomy and physiology. Amongst the most eminent in this department we may recite the names of Afellus, Harvey, Marcus Aurelius Severinus, T. Bartholin, C. V. Snieder, Van Horne, Highmore, D. de Marchetettis, Rudbeck, Gliffon, Wepfer, Blaafus, Malpighi, Steno, De Graaf, Herborn, Ruyfch, Swammerdam, C. Bartholin, Brunner, Luenwenhoek, Duverney, Bidloo, and of those who confined themselves chiefly to human anatomy, R. Vieuxfleas, Cowper, Raw, &c. &c. all of whom flourished in the 17th century. In the beginning of the 18th century, Haller confines anatomists as having attained a greater degree of learning and knowledge in the science which they studied, and under the title of the more learned in anatomy he gives an account of the works of Morgagni, Winflow, Chelfeld, &c. which were dated in about the first 30 years of that century, except Morgafal's work, "de Sedibus et Caufis Morborum," which he published at an advanced age. Under the title of the perfect state of anatomy, Haller reviews the works of Albinus, Senac, Monnas, (the latter and fon), Haller, Nicholls, Lieutand, Ludwig, Leiberqyin, Dr. Hunter, and his brother Mr. Hunter, Dubenton, Camper, Walther, Meekel, Zinn, Fontana, Wirsberg, Spalanzani, Hewfon, Portal, Sabrtcar, Scarpa, Blumenbach, Troja, &c. whose writings extend to the present time. The History which is given must necessarily be brief, and cannot, in consequence, be otherwise than imperfect. We therefore refer the reader for more ample and correct information on this subject, to the writings of Le Clerc, Fried, Coelieke, Portal, and to the Bibliothee of Haller.

A N A T O M Y. Comparative,-by this term is popularly understood the anatomy of animals, compared with the structure of the human body as a standard. This definition, however, is not sufficiently comprehensive. The organization of every animal forms a part of our knowledge of nature, and as far as it exemplifies or explains any of the functions exercised by animal bodies, furnishes those data which constitute the basis of physiology. The anatomy of the human body is not more applicable to this purpose than that of other animals, and many of the most important functions can only be understood by comparing the organs by which they are performed in the different classes of animals.

The agreement which necessarily exists between the structure and the habits of animals, renders comparative anatomy an essential branch of zoology. No classific division of the subjects of natural history can be either permanent or useful, which is not founded upon internal structure as well as external characters, and in proportion as this is attended to, we come nearer to that natural arrangement, which should be the chief object of all classification. It is in comparative anatomy, then, that the physiologist principally discovers the laws which determine the phenomena of organized matter, and that the naturalist finds all his observations upon the appearances and manners of animals verified and explained.

The anatomy of animals must have formed one of the very first subjects of human investigation, because in the most simple and early stages of society, almost all the means of subsistence or of enjoyment which man's kind possesses, are drawn from other animals. The savage, therefore, in killing his prey, and preparing it for the different purposes to which it is to be applied, is necessarily led to distinguish the structure and appearance of the several parts, one serving for food, another for tawment, a third for a weapon or an ornament, and so on; it cannot be supposed that this examination should be frequently made, by the most ignorant, unaccompanied by some reflections upon the uses of these parts to the animal in which they are found, or without comparing the same degree the anatomy of one animal with that of another:—a very considerable portion, therefore, of knowledge on this subject must have been obtained in savage society, but which has been lost to after ages, from the want of any record of human knowledge.

Thefacric of animals which has always made a part of the religious worship of uncivilized nations, afforded also many opportunities of observing the internal structure of animals.

The first account that we possess of comparative anatomy is being studied as a branch of philosophy is amongst the Greeks. Demonis is reported to have directed himself to this subject with so much ardour, that he at first incurred the suspicion of insanity, but when his objects were explained, the utility of his pursuits was fully acknowledged.

Aristotle may be considered as the first professional anatomist; his zoological researches were carried so far that his works are read with pleasure and improvement, even at the present day: his opportunities of studying the subject were indeed unparalleled; for we are told that Alexander bestowed upon him 100 talents, (a sum equal to 50,000l.) to be expended in procuring animals for dissection.

Herophilus and Erichius, who succeeded Arifotle in the school of Alexandria, are said to have dissected human bodies, but it is more probable that the anatomy of Alexandria was still taught by the dissection of animals, as besides the natural feelings to be conquered, there prevailed at that time a notion, that the touch of a dead body communicated a moral pollution; notwithstanding which, this school became so celebrated, that it was not only visited by the learned men of Greece, but by those of all nations. During the dark ages, comparative anatomy suffered nearly an equal depression, with the other sciences, and it was not until the latter part of the 15th, and the beginning of the 16th centuries, that it began again to be much cultivated; about this time flourished Rodeletius, Bellonius, Eufalchius, Cauferius, Coffer, Fabricius ab Aquapendente, Cafferius, Severinus, and several others, whose works may be still consulted with profit. The discovery of the circulation of the blood, and of the abscorbet syphilis, which may be reckoned as the commencement of another era in anatomy, opened the door to physiological enquiry, from which con-
ANATOMY.

Comparative anatomy derived the greatest improvements, as many of these researches were most conveniently conducted upon animals about this time; also the application of the microscope to the observation of the more minute structure of parts, furnished a new field for investigation; amongst those who most illustrated the anatomy of animals during this period may be enumerated Alliolius, Harvey, Stenon, Portacius, De Graaf, Redi, Willis, Raylch, Malpighi, Swammerdam, Leuuenhock, Perault, Needham, Blaffis, Ogerus Jacobus, Lillar, Bucillus, and Tyton. Comparative anatomy continued to improve in a regular and steady manner, during the early part of the last century, which will appear in the works of Valilnere, Valentinii, Geoffrey, De Reanum, Bradly, Maitre Jean Petit, the elder Monro, Trembly, Baker, Bonnet, &c. but it was not until the middle, and towards the close of the last century, that the anatomy of animals became a connected science; the discourses of the preceding ages were then arranged, compared, and systematically applied to the purposes of physiology; many new and important facts were added, and several of the most curious and interesting circumstances in the animal economy were fully investigated and explained. Collections of preparations to exhibit the structure of animals were formed in Paris, Paris, Gottingen, London, and some other parts of Europe: in the three first places, public lectures were delivered, by which a knowledge of the subject was diffused over the continent; this might be considered as the Augustan age of comparative anatomy, in which we meet the names of Camer, Daubenton, Vic d’Azir, Blumenbach, Pallas, Scarpa, Comparetti, Hunter, Monro, Hewson, besides a great number of others of the first character.

Some of these eminent men are still living, to whom may be added, as the most distinguished anatomist of the present time, citizen Cuvier.

It would be impossible, within the limits of this article to give any detail of the several discoveries which have been made upon this subject; they have only in a very few instances been published in distinct essays, and are chiefly to be found scattered through works on natural history and human anatomy, or in the transactions of literary societies. The works of Collins, Valentine, and Blaffis, which were published under the name of Sylvans, are mere collections of facts, without any suitable arrangement, and although as a simple compilation no book can have more merit than the "Anatome Animahum" of Blaffis; it is, however, to citizen Cuvier we are indebted for the first systematic work on comparative anatomy; the want of such books, and of public lectures has hitherto made this science less an object of general attention than its utility and interesting nature would deserve; but it may be expected that these deficiencies will be supplied by the present age, in which the value of every kind of knowledge is duly appreciated.

All those who have lately written or lectured upon comparative anatomy, have very properly chosen to arrange the subject in a physiological manner, instead of describing the structure of each kind of animal separately. This mode, however, if strictly adopted, would prove highly inconvenient in a dictionary, in which the matter should be so distributed, that it could be immediately referred to, under similar heads or titles; on the other hand, to multiply divisions much is tedious and perplexing, and incompatible with the perfect understanding of this subject, which requires that a number of facts should be known before any comparison or conclusion can be drawn. The plan pursued in the present work, combines in some degree both methods of arrangement. Thus certain classes of animals are established upon the basis of an agreement in their general anatomical structure; each of these classes forms a distinct article; and the faculties and functions belonging to the animals it contains, are made to many subdivisions or letter heads, under which the structure of the organs, subservient to these functions, is discussed.—See Classification of Animals and Functions.

Anatomy, Vegetable.—All natural science confills in the discovery and application of facts; its usual progress, therefore, is gradual; history records no period in which nature has not been studied, and in which the foundation of most of the sciences has not been clearly laid. The internal structure of vegetables, however, during the early ages of mankind, was involved in almost perfect obscurity. It was not indeed until the latter part of the 18th century that the anatomy of plants was formed into a distinct science; before this period the same opinions were entertained upon the subject that were taught by the Greeks, and which were not established upon actual observation so much as the analogy that was very properly imagined to exist between animal and vegetable bodies. Thus they attributed four parts to all plants:

1. The sap or juice, which they considered similar in its uses to the blood.

2. Secondly, the fibre of plants, which they called nerves, from their resemblance to those parts in animals to which, however, they did not ascribe the property of sensation.

3. Thirdly, the veins or vessels that were supposed to contain the fluids.

4. Lastly, the pits, which they conceived to be analogous to the spleen of animals. A further account of the early state of this branch of science may be obtained in the writings of Anistote, Theophrastus, &c. and in the physiologia of Du Val.

It was only by investigations, conducted with the microscope, that the real structure of vegetables could ever have been developed; it is to the invention of this instrument, therefore, that we owe almost all the knowledge that is at present possessed upon the subject.

The microscope was first made use of to discover the organic structure of plants by Grew and Malpighi, for what was done before them by Mr. Hooke, and some others, scarcely deserves to be noticed, as their attention was chiefly directed to the examination of the external parts of vegetables. In no instance, perhaps, have the first labours on any branch of science gone so far as those of Malpighi and Grew. The books which they published under the title of the anatomy of plants, rank amongst the highest authorities upon the subject at the present time. It is remarkable also that on the 7th December, 1671, the same day on which Grew prefixed to the Royal Society the first part of his Anatomy of Plants, the society also received the manuscript of the first part of Malpighi's "Anatome Plantarum."

In consequence of the degree of perfection to which these eminent men carried vegetable anatomy, the writers who have followed them have been employed in the investigation of the functions, rather than the structure of plants. Some curious and highly important facts have, notwithstanding, been added with respect to the growth of timber, the anatomy of the bark, and the more minute organization of the vessels, leaves, flowers, seeds, &c.

These more modern discoveries in vegetable anatomy may be principally found in the writings of Leuuenhock, Bonnet, Duhamel, Relro, Gartner, Hill, Baron de Gleichen, Reichh, Mayer, Guttard, Hedwig, Walther, Duoflure, Desfontaines, and Mirbel.

There is scarcely any branch of science more interesting...
in the pursuit, or which holds out a more valuable end, than vegetable anatomy. The delicate, minute, and complicated arrangement of parts, which appears in the organization of vegetable bodies, presents a continual subject of admiration and amusement, in procuring which, the feelings are never wounded, nor the senses digusted. But this science is not a subject of mere curiosity or idle speculation; it affords the greatest illumination of the structure and functions of animals, and tends in an eminent degree to improve the arts of agriculture and gardening, from which civilized man derives all his means of subsistence, either by his own immediate consump- tion, or the support which is obtained for domesticated animals.

There are certain parts of vegetable bodies which may be termed common, on account of their being generally distributed throughout the system. There are the cortical substances usually included under the names of bark—the wood, the medullary part or pith, and the different orders of vessels for containing the sap, air, or secreted fluids.

There are other parts again which, from possessing different external figures, and performing separate uses in the vegetable economy, might be called peculiar parts; these are the roots, the trunk or stem, the branches, the buds, the leaves, the organs of reproduction contained in the flower, the seed or fruit. It is under these several heads that the anatomy of plants is discussed at large in this dictionary. Such an arrangement appears the most convenient, if not the most suitable, as by adopting it popular terms are obtained for most of the articles, a thing very desirable in conveying knowledge by means of a dictionary. This disposition of the subject also is nearly the same, that has been chosen by other systematic writers upon the anatomy of plants.

The functions of vegetable bodies are described, arranged, and their proper references pointed out, under the article PhysioloY vegetable, which see.

Anatomy, Perspective.—By this term is implied that degree and kind of anatomical knowledge, which is requisite for painters and sculptors, &c. comprehending chiefly the bones which support the figure, the muscles which move them, and the integuments with which they are covered.

Every confederate person will allow, that the painter, &c. who represents the human figure, cannot obtain any great celebrity in his art without some knowledge of anatomy; but it may not soon appear to every one, that there is a necessity for that considerable degree which it is requisite for him to know; and it may be concluded, that little or none of this kind of information will be absolutely necessary for those artists, who devote themselves to the repre- sentation of clothed figures. It may also be conceived, that however proper the knowledge of the external musculi may be to the painter of nude figures, the bones, being mostly covered by them, will be no considerable object of his attention; and that statues, with the living model, will communicate all the information required.

The skeleton being the frame-work supporting the human fabric, it would be diametrically opposite to our opinion to think lightly of osteology. As the bones describe the grand points of the figure, and are acted upon by the muscles and tendons, a principal part of the painter's attention should be given to the configuration of the bones, especially of the joints; and although the knowledge of the musculi which move them and fill up the cavities demand much of the artist's considera- tion, yet it is presumed, that with the use of statues and living models, a person well informed in osteology would make a more rapid progress in the representation of figures, were his knowledge of the musculi has not been obtained, than he who has well studied the mythology, but had not a competent acquaintance with the bones. This observation will also apply to the supposition of clothed figures being painted without a prior acquaintance with anatomy; it being pre- disposed, that however capable such a person may be of painting drapery, without a considerable degree of anatomical knowledge, his figures will resemble bundles of cloth or linen without that animation and grace, which are to be seen in the works of those artists who have been honoured with the approbation of the judicious.

It is certain that statues and living figures are of great use to the painter; the antique figures will form his taste, and living figures are so continually used by all painters who have to excel, that they form a very considerable branch of the education of artists in all their academies. It is, however, next to impossible to a painter should copy the object before him, if he do not understand it; for, let him be ever so diligent and attentive, he will fall into considerable mistakes. Although in attitudes without motion or exertion, the living figure may for a long time direct his pencil with facility; yet when violent motion and exertion are to be expressed, the living model can but affi- l the hand for a few moments; here the knowledge of anatomy lends its aid, without which the wearied figure before him will only perplex and render his representations inanimate.

"Nor is it, as some may be apt to imagine," says Algarotti, "merely to represent athletic and vigorous bodies, in which the parts are most bold and determined, that anatomy is requisite: it should be understood, to represent persons of the most delicate frame and constitution, even women and children, whose members are smoothest and roundest, though the parts may be known by it are not to be strongly expressed in such subjects; just as logic is equally requisite under the polished inflections of the orator, and rough arguments of the philosopher. But it is needless to spend much time in proving, that a painter should be acquainted with anatomy, or in showing how far his acquaintance with it should extend.

"He must be acquainted with the figure and connection of the bones, the origin, progression, and shape of the muscles, the different degrees with which they are covered with fat, which substance lies thicker upon some places than in others; but above all he should know in what manner the muscles act the various motions and gestures of the body." Count Algarotti wrote with judgment upon painting, and his remarks upon anatomy deserve respect. The following extract was written by a physician, who seems to have had a taste for painting; although some of his remarks may have been anticipated, it is thought proper to present them to our readers; they will be found, amongst other useful things, in Dr. Brisbane's Anatomy of Painting. After speaking, in the preface, to surgeons, the doctor observes, that "as the representation of the outside, or the surface of the human body, is the chief object of his art, he ought to study the structure of the body and its inward parts, chiefly for the sake of, or as they affect, or are referred to the external surface, and make their appearance there, or are adherent in the better drawing and representation of it. Hence the parts which they themselves upon, or affect the surface of the body, ought to be the sole or chief object of the study of a painter. The parts, therefore, that lie nearest to the surface, or outside of the body, and consequently that are most immediately concerned in forming its outline, are first to be considered by a painter, viz. the external layer of the muscles, especially the larger ones, and those that are most subject to appear in the movements and attitudes of the body. As to the skin and fat under it, these are spread over the
the whole body, and are to be considered merely as a drapery or covering to the more inward parts, which appear every where more or less through them, at some times and places in a stronger, and at other times in a obscure manner. But though the parts nearest to the surface are the first and most obvious that belong to the study of a painter, yet nature has so contrived the human body, that the external parts cannot be well understood, without a full idea of the internal ones; even of those which are, as it were, buried in the centre of the body: I mean the bones or skeleton, which are the foundation and frame on which the whole fabric is built, and to which, as a base, all the other parts are mediatly or immediately referred; particularly the muscles, so necessary to be known by painters, which are chiefly implanted into the bones, and make considerable marks and impressions upon them; and consequently without the knowledge of the bones, the muscles, and other soft parts cannot be understood; but there is another reason why the bones must be studied by the painter, viz. because parts of the bones, though covered by the integuments, appear not obscurely to the eye in many places of the body, and, like the large muscles, are the cause of the outline, and of the character, proportion, beauty, and appearance of many parts; and when properly considered and understood, the bones, by many fixed points, give the finest direction to a painter, not only how to find and place the muscles, but also how to draw the human body; nor can it be so judiciously or readily drawn by any painter, as by one who understands anatomy in a matterly manner, particularly the bones and external muscles, and can point them all out upon a living man, and, by means of that knowledge, determine all his points, and the forms and proportions of every part and member, adding one part to another as he knows they lie upon the body; this is the true and natural method of drawing the human figure. But though the bones and external muscles are the most necessary part of the anatomical study of a painter, yet it must be confessed, that at least a general knowledge of the whole fabric is of great use, in order to a more complete and matterly representation of the human body, and in order to be able to diversify, and give reason for every appearance; and not only the solids must be known by a painter, but he ought likewise to have some idea of the fluids, as on these chiefly depend the various tints and colours of the skin that appear in the different sexes and ages of life, in different characters and occasions, climates, and nations. And as the human frame is so contrived, that the movements and passions of the mind affect the body, and are evidently seen and distinguished upon the countenance, and are expressed there and in other parts of the body by strong and certain characters; and as this is the most delicate and highest part of the painter's art, by which he is capable to move, to delight, and to instruct mankind, and to recommend himself and his art to the study and admiration; therefore, the study of the mind, and its various characters, passions, and movements, so far as they are marked upon and expressed by the body, ought to be above all things the study of a painter; for as the members of the human body, in a good picture, beautifully appear through the drapery; and as the bones and muscles appear through the skin, so the mind itself, in all its characters and passions, appears upon the countenance, and in the expressive proportions, attitudes, and tints of the various parts. A lover of the arts of design, or indeed any anatomist of true taste, will look upon the human body, and all its parts, with the eye of a painter; otherwise, he will see and describe it in an ignorant and rustic manner. Observing the human body with the eye of a painter, enables us to see all its beauty and perfection, and raises in our minds a thousand ideas of the use and propriety of the several parts, whereas one ignorant of painting will be totally infensible; and, in describing the human body upon this plan, we naturally do it in the most clear, short, and agreeable manner. We wish to impress upon the mind of the young painter, that he may absolutely obtain a competent knowledge of anatomy, and therefore have strengthened by quotation what we before obferved. At the same time we have purposely omitted Dr. Prior'san's representation of the method adopted by all artists, viz. that of proportioning the figure by leads, &c. (see Adrian's measure of the antique figures) which, if he had well understood and understood, he could not have rejected.

In a well-formed figure, all its parts are in proportion to each other: if the head be the tenth part of the height of a perfect model, its imitation cannot be well, or with certainty, made without this being used as a scale for the other parts: if the face be divided into three parts, and one of these parts be allowed to be the length of the nose, which it is in all the fine specimens of beauty and proportion, either ancient or modern, then may the figure be said to measure eight heads in height, or thirty times the length of the nose; and this scale will give a right proportion to figures of all dimensions. It is well to caution the student against departing from the reversed ancient path by the hastily determination of any person, as the young artist may be induced by his adherence to individual instead of the general of nature. See Reynolds's Discourses to the Students of the Royal Academy. See also Fufci's Lectures. While he is beginning this pursuit, at the very time when he is the most liable to err, we present our caution. It is not intended to speak of picture-regale anatomy, merely to amuse persons who wish to have some conception of it, but to endeavour to treat the subject, as to assist those who desire to be directed into the right path of attaining necessary information in order to practice; to point out the method, by which the study is to be pursued; what books, tables, and calls are conceived to be most proper; and which, by experience, have been found the most useful. Some observations will also be made that we apprehend are very much required, and which are not to be found in any printed work upon this subject, that we know to be extant. Some of our readers may think too great fires are laid upon anatomy for artists, while others those instructions will seem superficial. To the former, we recommend a second consideration of what has been said; to the latter we submit, and refer our readers, for deeper knowledge, to the anatomical labours of the gentlemen, to whom these parts of the Cyclopædia are committed; while at the same time we advise the student in painting not to pay too much attention to these curious parts of anatomy, which do not concern his profession. In excise for any want of connexion which may appear, though it is meant to be as methodical as the nature of the requirements will admit, it should be noticed, that some of our observations are meant to be impressed upon the memory, and retained as distinct maxims.

Having thus far offered general observations, we might now immediately proceed in the particular steps, by which the student is to pursue his practical knowledge, were it not for a consideration, that an attention to theory should in a flight manner, at least, precede practice, for which reason it is thought necessary to exhibit a general survey of the bones and muscles in this place. This has been done by excellent writers upon anatomy, but many of them have been too particular for our present purpose. As we think it may not be in the power of our readers to procure those works which are written in a flight manner, such as is at present required, when it will be necessary; for this reason the following
ANATOMY.

lowing general systems of occultism and mythology may be here introduced with great propriety.

The system of the bones of the skeleton, is, as it were, the solid frame that contains, defends, and gives stability to the softer parts, and to which they are ultimately attached, and consequently this bony fabric has of itself the general form, size, and appearance of the entire body. This solid frame is most artfully composed of different parts, jointed to one another, so as to be capable of every useful and graceful motion in the whole and in all its parts: and the various bones and pieces of which it is composed differ in size, form, and strength, in position, connexion, and motions, according to the uses and exigencies, and even the beauty of every part, to which they often add a certain grace and character, by obscurely appearing here and there through the softer parts, even in the living body.

The head is, as it were, the dome or cupola to the whole edifice. In this highest part the bones are placed, and the brain defended by solid bone. The head, like the rest of the body, derives its size, form, proportions, and principal characters first from the bones; but the softer parts that cover them add life to the motions and the finishing beauty, in which last the hair also concurs; and it is surprising how few simple organs, and so thin a covering to the soft parts, are capable of such infinite variety of forms and expressions as we see in the human countenance, affording an endless field of study. In the head the bony part is a more complete fabric, and comes nearer to the form of the living subject than any other part of the skeleton; being the seat of so many noble organs, and the chief part to be studied by the painter, it deserves the first place, according to the custom of some anatomists.

Here vestiges of the smooth polished bone flew themselves in the forehead, in the ridges all round the eye, in the hollow of the temples, on the nose and cheek bones, and margin of the jaw, giving great pleasure to the painter who understands anatomy.

Next comes the elegantly bent pillar of the spine, strong, yet flexible, by confilting of so many parts firmly tied together. This bony column, at the same time, gives size, strength, and motion to the body, attachment to many surrounding parts, and being hollow through its whole length, serves to conduct and secure the spinal marrow, and to transmit nerves to every part of the trunk and extremities. The spine consists of four and twenty vertebrae, generally increasing in size as they descend, and gradually varying in their figure; even of these vertebrae belong to the neck, which admit of peculiar and considerable motion, and allow of many graceful movements to the head and neck. The next twelve belong to the back; these are almost rigid, and admit of very little motion: to these, as to a solid body, the twelve ribs of each side are attached, which, together with the sternum and their own cartilages, form a kind of yielding cage or basket to contain the heart and lungs. This bony case admits of a small motion when we breathe; to the lower margin of it all around is fixed the diaphragm, a transverse muscular partition, dividing the thorax from the abdomen, a main organ of respiration, and of other functions. The five lower vertebrae belong to the loins, admit of considerable motion, and are of great use in the firm and graceful attitudes, and flexions of the trunk, and in many offices of common life. Between the ribs and pelvis there is a great void in the skeleton, especially before. In this space lie many of the abdominal viscera, with the parts that contain and cover them, making on the fore-part the beautiful swell of the abdomen, elegantly marked by the containing parts.

To the superior part of the thorax, by means of the transverse clavicles, and of large and strong muscles, are appended the upper extremities, which, at the shoulders, give breadth to the thorax above, and serve many noble purposes of strength, of art, of defence, of expression, and of beauty. They are divided into the shoulder, consisting of the clavicle before, and the thin broad scapula behind, which, moving free among the muscles, by their means govern the motions of the whole arm, and its triangular form has a most beautiful effect, seen floating among the soft parts in the naked figure; and indeed the whole shoulder is a noble noble part, and a fine excuse to a painter; for, besides large muscles, the bones themselves also mold beautifully and distinctly appear. Next comes the arm bone, capable of a large and free motion, whose round head at the shoulder, in lean persons, obscurely appears, and at the lower end its condyles are evidently seen, where it is joined to the fore arm; this consists of the radius and ulna, which move upon the arm bone with the more confined motion of flexion and extension; but for the sake of the hand, and its various and important uses, the radius and ulna likewise receive each other lengthways, in a very curious and singular manner, turning the hand alternately prone and supine, as upon an axis. Lastly comes the hand itself; it consists of the carpus, metacarpus, and five fingers, the thumb being, as it were, an antagonist to the other four; the whole together, by its general form, and different parts and motions, serving almost every possible use, and its various attitudes being capable of great beauty and variety.

We come now to the pelvis and lower extremities; the pelvis supports and defends the lower viscera. The back part, or os facrum of a triangular form is, as it were, the basis and continuation of the spine, whose vertebrae it obscurely resembles, and performs its offices by receiving the extremity of the spinal marrow, and transmitting nerves to the surrounding parts. The lateral and fore-parts of the pelvis, though fixed and immovable, answer in some respects to the seapulz and clavicles, as they afford sockets for the thigh-bones, and also a seat to many strong muscles that belong to the trunk and extremities. The upper margins of the os ilium appear gracefully in the living body on the fore-part, and form a kind of boundary between the belly and the thighs. The spine of the os ilium, as of the vertebrae, obscurely appear in bodies not loaded with fat, and also the great trochanter is deeply immersed among large and strong muscles; but at the knee the bones make a very fine appearance, viz. the condyles of the thigh-bone, the tops of the tibia and fibula, and the patella, a bone so beautiful and so useful in the government and defence of this joint. The bone of the tibia appears through the whole length of the leg, and at the lower part of the tibia and fibula, the two ankles elegantly appear, and fix the bounds between the leg and foot. The foot, a thick and solid part, serving as a basis and support to the whole body, consists of the tarsus, metatarsus, and toes; in the whole, and in every part, it in some part resembles the hand, and, although much inferior, comes next to it in beauty.

The skeleton is one simple system of solid parts, serving as a jointed frame on which to build the rest of the body. But the muscular or flabby parts that clothe and move the skeleton are soft, and form a more various and complicated system, consisting of different fibres or layers, one covering another, and divided into numerous portions of different size and figure, regularly disposed over the whole body, composing a great part of its bulk, and the chief cause of the size and form of the members; for when stripped of its uniform coverings, viz. the skin, and cellular or fatty membrane, the
ANATOMY.

The muscles differ greatly in their size, figure, and other particulars, according to the parts where they are situated, and the uss to which they are applied. But in general they are compos'd of fibres; the middle part or belly being large, soft, and red, and the extremities or tendons, which are generally iner'ted in bones, being smaller and harder, white and shining. The red part is properly the moving power, and acts by contraction, during which it swells, and becomes hard and flatter, sometimes to a great degree, and thereby pulls the parts to which its extremities are affixed. The muscles are governed by the power of the will, except the fibres of the heart and of the melle, &c. which are of all others the most irritable; the muscles of respiration act in both ways. The muscles can act in a most gentle and delicate manner, and also with great strength and velocity, though much of their power is lost by the places and manner in which they are often situated and iner'ted on the parts to be moved. The cau'ses of muscular motion are difficult to be accounted for.

The muscles are arranged in their places, and allowed to slide upon each other by means of the cellular or fatty membrane; and their fibres are lubricated every where by the oil it contains, and in the fabric of the body, and of the muscles themselves, many contrivances are used to affit their actions. The muscles are in sufficient number, and so disposed and contriv'd, as to be a warm covering and defense to the more inward parts, as well as to move the joints in all the directions they are capable of, to affit in many functions of the body, and to place and retain it in every possible attitude; in doing which the particular muscles seldom act alone, but in the most various manner co-operate with, or oppose each other; so that the whole muscular system may be consider'd as one muscle, every fibre being under the power of the will, at the pleasure of which the whole body, and all its parts, are at once or alternately moved and govern'd, as it were, by so many bridles. Besides this grand purpose of the muscles, they likewise serve the general uses of the animal machine, being the chief cau'se of respiration, and of the circulation of the blood and juice; also promoting diffusion, absorption, secretion, excretion, nutrition, and growth; hence they likewise prevent and cure obstructions, and other diffe'ses, and by their incessant action, are one great cause of the hardening and wasting of the body, and the decays of old age.

Although we think too great an attention to the minuties should be avoided by the student, especially at the first, yet it will be worth the attention of the young articl't to examine the nature of a muscle a little more carefully; and to know that the tender part of a muscle consists of a bundle of thin long threads, and is divided into a great number of fasciculi, or little muscles, each inclosed in its proper membrane. The fasciculi of muscular fibres have not always the same situation in regard to each other, nor run in the same direction, but sometimes run parallel to themselves and their tendons, and are sometimes disposed obliquely both to their tendons and to each other; but information respecting circumstances of this nature will be more completely obtained by inspecting the muscles themselves. A sight of the object will impress the knowledge conveyed by the anatomist in the most forcible manner upon the student's mind.

Some have thought that the most proper method for the painter to begin his studies is under the instruction of some able anatomist; but, unless the anatomist understand the arts of design, this we disapprove, and think it bel' that the affittance of directions should rather follow than precede the general practical knowledge. It is therefore recommended that the student provide himself with some of the tables which anatomists have published. The tables of Albinius are deservedly esteemed; and what are, perhaps, better, those cut in wood, and which illustrate the ancient folio volume of Vellanius, edited in 1543, said to be drawn by Titian; but whoever the artist was, they are delineated with great judgment, the figures are graceful, the muscles are represented in a robust figure, and properly swelling to the action of the figures: this be of no great consequence to surgeons it is to painters. These tables may be copied with great advantage. We suppose the student to be expert in drawing, which is the first step to be taken in the painter's art. Timney's compendious treatise of anatomy is also to be recommended: it is a selection made with judgment, although the plates are copied; the shapes and situation of the external muscles their names, attachments, and u'se are mentioned. This compendium was published by Sayer, in Fleet-street, in 1772. While such representations as these are copying, which should not be in a careless, but in a decided and determined manner, the student will attain a great deal of the general knowledge of anatomy, especially if he should write upon the margin of his different views of the skeleton the names of the principal muscles, which, in the complete figure, unite themselves by their tendinous attachment to the bones, with lines drawn to their origin and their insertion; and also if the drawings of the muscular figures in this work have in their margins the names of the muscles, to which may be added their characters as flexors or extensors, and the limb they bend, extend, or rotate, pronate, or supinate, &c. Timney's compendium, before mentioned, will readily affit in this particular, although the original figures in Vellanius are more recommended as objects to copy after, if that work can be procure'd.

The next step we recommend is to obtain the use of a good skeleton, furnished with a careful imitation of the natural cartilages and its articulations. With this should be compared the drawings which the student has directed to make, and the different views they represent, as in front, side, or behind, gratifying his curiosity, and imprinting the object upon his memory. To the complete bony fabric, the head, trunk, and limbs should be obtained separate, for convenience, and their more particular inspection; and some of the bones finely, that the joints, &c. may be more carefully observed. We advise the young artist to draw these in different views; first, the separate bones as large as nature, marking the tuberosities and ridges, which give attachment to the muscles, the condyles of the joints, &c. with written remarks on the margin. We conclude that the student has been initiated into the principles of grace, and knows, in some degree, how to produce a figure in easy progressive motion, or prepared for such motion, which is what painters mean by grace (see GRACE.) In the skeleton he will observe how the joints, &c. by their mechanism, admit the muscles to produce the effects in the living body; this will open a great field of contemplation respecting his art, and in the wonderfully contriv'd object before him, the profound wisdom of his Maker. When he has thus advanced to an examination of the skeleton itself, he may derive much assistance from an anatomist, who knows how to point out to the artist such parts as will be requisite in his art; adapting himself properly to the degree of attainment which the student has made. In the want of such a friend, however, the works of anatomists are recommended.

The following hints, we apprehend, will be of use; they are few and short, though they may be important, as we only mean to give directions respecting the manner in which the painter is to pursue his studies.
It is of no great consequence whether we commence with the head or the pelvis: but in conformity to the system already given, the head is first mentioned; in which it was observed, the bony parts come nearer to the form of the living head than any other part of the skeleton. This should, like the rest, be drawn carefully; the face being complicated in its parts demands great attention, which may be deferred for the present. Let the artist, however, examine the malarial process of the head, which will be important to him in future; let him observe how the head is placed upon the atlas of the spine, which moves freely upon the tooth-like process of the second vertebra. Let him observe the general form of the head, which is given by the trunk and upper extremities by the basin of the several vertebrae, the degree of motion which is allowed to each part, much in the neck and loins, little in the back, and none in the vertebrae of the facium; how near the centre of the body this is placed, although the spinous processes of the vertebrae in the back approach so near to the contour of the figure, forming that ridge which is usually called the backbone; yet the pillar of support which is composed by the basin of the vertebrae, articulated in a peculiar manner to each other, is, upon the whole, much nearer to the centre of the body than will be supposed upon the first inspection. Although the figure of each rib, which is attached to the spine, may be examined in figure with more attention, yet, at first, we recommend the consideration of the whole together, that is, the general figure of the ribs with the sternum and cartilages, as the student's proper object, for consideration; the sudden turns which the ribs take backwards from their connexion with the spine, after which their curvature is not so sensible; also that the capacity of the upper part of the trunk is very small when compared with that which is below, contrary perhaps to what might be expected from a sight only of the living figure; he may be inquisitive respecting the extent of motion of the ribs while breathing, in which his anatomical instructor can greatly assist him. Let him examine the junction and situation of the clavicle; the degree of elevation to which the other end of the clavicle being attached to the acromion of the scapula, is permitted to rise by the elevation of the shoulder. The scapula should be carefully drawn as well as inspected, the outside of the parts behind, and especially the spine of that important bone; how much it can be moved by the elevation of the arm above the head, and how much nearer the bases of the scapula can approach each other, when the shoulders are drawn backward; also how distant from each other the bases are, when the shoulders are drawn forwards. Several views of the end of the scapula should be delineated, both in connexion with, and without, the bone of the arm, marking the acromion and coracoid processes. The inside view of this bone should be fetched with the clavicle and humerus removed; that the mind may be clear in these parts, although they are very much hidden by muscles, &c. in the living figure. When the nature of the ball and socket-join of the humerus with the scapula has been well observed, nothing need, at present, to be noticed, but to draw and mark that bone of the arm, and notice the parts upon it which give attachment to the muscles, until the muscle come to the extremity united to the ulna; which, we think, should have considerable attention paid to it, both as united with the bones of the fore-arm, and separate, that the hinge-joint may be well understood, being careful to examine the condyles, and also the smaller tuberitis, &c. If he can have an opportunity of drawing from a natural skeleton (a natural skeleton is one prepared with its own proper cartilages) it will be greatly advantageous to him; and more so, if he can inspect and draw from these parts when newly dissected. We also advise that particular attention be given to the inner and outer protuberance of the humerus, giving attachment to some very important muscles with which artists ought to be acquainted.

The ulna should be drawn separate and in connection with the radius, its hinge-joint also with the humerus: this should not be paid over hastily. Its extremity at the elbow should be very much considered, and the permission it receives by the hollow of the humerus, &c. of folding, as it were, into that hollow, when the arm is extended. The same attention must be paid to the peculiar shape of the radius, the degree of the upper extremity of this bone with the ulna and humerus, the rotation motion which is admitted, in pronation and supination, the size of these bones at the elbow and at the wrist, the head of the ulna being larger above, smaller below, and the contrary in the radius; as well as the general shape and proportion when both are united together.

Lastly, with respect to the present consideration of the radius, we call particular attention to the tubercle, in which is inserted the tendon of the biceps muscle. The compact bones of the wrist or carpus being articulated to the radius, with the considerable motion it allows, will be an object to which, even at first, the attention is due, and its union with the hand, &c. The metacarpal bones, and those of the fingers may be well understood by making careful drawings.

We now descend to the pelvis, composed indeed of several bones, but perhaps better understood by artists, when they are together, than when separate, as they admit of no motion in themselves, except at the coccyx; but the motions of the pelvis itself, upon the thighs, demands, we think, even at the very first, as much attention, if not more, than any other bone of the human body.

The understanding of the turns which this compages of bones take in standing or moving figures, will particularly afford the informed artist to produce graceful effects in his imitations, or, at least, without knowledge of this particular, it is by accident only that he can produce his figures in graceful positions. When by drawing this balus for the abdominal viscera (without concerning himself with its contents), he is become acquainted with its form, he should fluty in the following manner: let him observe the upright posture of a graceful figure, standing upon one leg, right or left; let him next consider how the spine of the ilium will appear in that flat; then place the pelvis so before him, and draw it carefully, the inclination of that important part being according to the posture. This will do for a person who is eager in the pursuit of knowledge, in all other flats in which the action moves the pelvis; and will exhibit him the different nature of the fluid of anatomy, in a surgeon or a painter, or to what different ends the same figure may be applied.

The ball and socket-join should be well considered, where the femur is articulated with the ilium, the whole form of the thigh-bone should have due attention paid to it; particular notice should be taken of the great trocanter, and also some observation should be made upon the ridges in the femur. This should be studied by the artist; being let in the different postures that it sustains, under particular actions, as was before directed for the pelvis; but the condyles, and the nature of the joint, and its tuberitis, demand strict attention in connection with the large bone of the leg. It should be observed, that this joint is very ridged when the leg supports the figure, and admits of no rotatory motion; this joint should also be studied without, as well as in connection with the patella. When the leg is firmly extended, as in supporting the body, the patella is drawn up by strong muscles, and rises above the joint, being then flattened on the outside of the
the head of the femur; but when the leg is bent, the point of the patella again falls within the joint.

By carefully drawing the tibia and fibula they will be understood; but the protruberances forming the ankles must be observed, and the faithful delineation of them forced up in the mind; noticing that the inner ankle, formed by the tibia, is higher, and advances more forward than the outer ankle formed by the fibula. The heel and tarsal bones with the metatarsal should be studied as they are united, nothing the manner in which the bones of the leg are placed upon them, together with the whole of that finely constructed arch that bears up the whole body.

In addition to what has been said upon the study of the knee, the aid which the natural skeleton affords should lead the draftsman to correct knowledge of this important and beautifully formed and useful joint. If he has opportunity, it should be also studied after a fresh dissected subject, with the leg in extension, as well as in its state of flexion and, as before hinted, his observations written on the margin should accompany the drawings.

In contemplating the articulations in the natural skeleton, it will be observed, that the shortening of the body at one time more than another, is not by drawing out like a worm one part of the body from another, but by the muscles bringing the bones more perpendicularly over each other. This leads to the consideration of the muscles.

A muscle is composed of two tendinous and slender parts,” as Count Algarotti expresses himself; “one called the head, and the other the tail, both terminating at the bones, and of an intermediate part, called the belly: the action of a muscle consists in an extraordinary swelling of this intermediate part, while the head remains at rest, fo as to bring the tail nearer to the head, and consequently the part to which the head of the muscle is fixed, nearer to that part into which the head of it is inserted. There are many motions, to effect which several of the muscles (for this reason called co-operating muscles) must swell and operate together, while those calculated to effect a contrary motion (and therefore called antagonist muscles) appear soft and flaccid. Thus, for example, the biceps and the brachiius internus labour, and when the arm is to be bent, and become more prominent than usual, while the gemelli, the brachiius externus, and the anconaeus, whose office is to extend the arm, continue as it were flat and idle. The same happens respectively in all the other motions of the body. When the antagonist muscles of any part operate alone and at the same time, such part becomes rigid and motionless; this action of the muscles is called tonic.” It is to be wished that the student may be informed by a dissected subject of the nature of the different forts of muscles, as those whole fibres are direct, like the biceps, of others which are oblique, like the pectoral muscles, of those which are called penniform or featherly, as that which moves the thumb. Those which are round, being internal or little seen, do not belong to his studies. He should also be taught that the tendons admit of no contraction or extension; that they are long for convenience, and that they are in general confined near the centre of motion, by annular ligaments, to prevent deformity, and also to admit of a more quick motion, as in the wrists; but where the contrary arrangement renders them more useful, they are not thus confined as in the hamstrings, and the bend of the forearm.

He should know that the same muscles are used to draw the body to the arm, which draw that member to the body; also, that those muscles which bend the thigh on the body, when the feet are fixed, bend the body on the thigh; that some muscles have not all their motions engaged in every action in which such muscles are employed, but only part of them, as the deltoid, the portions of which have various motions; such portions, however, never act without the concurrence of some other adjoining muscle with them.

These things being premised, the student is to be directed how to proceed, and what are the ready means. We before directed him to the tables published by anatomists: this advice, we suppose, to have been complied with. It is, therefore, recommended him to draw with care from a good cast of a muscular figure, after the skin and other integuments have been taken away by a skilful anatomist. In the Royal Academy there is a valuable figure of this kind, which is strongly recommended to those who can have access to it; and where he will also find other subjects of this nature worthy his attention, as well as proper instruction from a very respectable professor of anatomy; but in the want of the instruction which that institution has provided for its students, &c and the use of the large anatomical casts, which it poiffeis, a cast should be procured from those shops which supply artists with anatomical and other figures in plaster of Paris. Mr. Banks made an excellent model after the original, which we mentioned to be in the Royal Academy, about three feet in height, which was cast in plaster; and we recommend it above any others that we know can be obtained. The figure (of which this is an admirable copy, though of reduced size) was prepared for the benefit of the late Dr. William Hunter, to which every attention was paid by him and the artists who assisted him in placing the figure in a graceful attitude.

The unfortunate subject of that cast was executed for murder, the body was taken from the place of execution as quickly as possible, and while warm, and the muscles capable of contraction, to which their nature disposes them (even without the influence of the will), the body was set in the posture it now stands, and in which it was dissected; then the cast, of which we speak, was produced. Many similar attempts have been made, but this appears to be by far the most successful of any figure we are acquainted with, which arises from several concurring circumstances; such as its being a well proportioned figure, its attitude graceful, the limbs so disposed as to shew each part distinctly, and its having been prepared by a great anatomist. Being a cast from nature itself, the mind has an unbounded confidence that he who studies from it cannot be misled by the mistakes of an artist; and that the figure being set while the muscles were warm, they have, in a great degree, the proper swell, comporting with the statue of the limbs. Mr. Spong made a small model of this figure, the bronze casts from which, for their size, are excellent. There are several other casts to be met with which may greatly assist the student: that after the anatomical figure which was modelled by Mr. Rubilius, is very natural and good; there are also some executed by the French Academy. We recommend the head and neck as large as life from the French, and also the trunk and upper extremities in a reduced size; one side having the external muscles taken off, and the other side retaining them for the sake of comparison. Another of the leg and thigh of a man with half the pelvis, exhibiting the psoas muscle; the latter which we particularize, and desiring as much notice as any, are two dissected arms, cast under Dr. Hunter, which are fine exhibitions of muscular strength. While the student is in practice, and as his judgment expands, or his fellow practitioners recommend, he will find afflicting objects of this nature presented to him in abundance. These hints concerning the casts, &c may be of use to some of our readers, especially those who are situated at a distance from the metropolis.

Whatever cast of the muscles the student’s judgment or con-
convenience has selected, he ought to examine and copy different views, writing upon the margin (as we directed concerning the study of osteology) the names of the muscles, their origin, insertion, and their use, as flexors, extendors, and rotators; observing, with the same attention, the situation of the bones behind the muscles, and where the projections on the surface are caused by them. While the young artist is making such drawings, he will do well continually to examine and compare the living figure with the anatomical cast; the figure being placed in the same attitude with the object of his imitation; tracing with the finger the bones and muscles of the living subject to ascertain the causes of the effects he observes, and which he cannot otherwise account for. This will greatly facilitate his knowledge.

A common-place book for anatomical sketches, as well as the complete drawings he has been advised to make, will be very useful, in which the separate parts may be delineated; beginning with the head, and descending to the lower extremities, in the following manner. First, suppose it to be the front view of the head and face of the skeleton; then he may draw from a plaster cast of the head, &c. with the skin taken off; such as the large dissected head, from nature, which we mentioned as being prepared by the French academy; or if this be not at hand, the head from any of the before-mentioned anatomical figures. Then a drawing should be made in the same view from a living person, in whom the muscles are to be distinguished, the subject not being covered too much with fat. Several views of the face should be treated in this manner.

What has been said of the head will apply to the neck, trunk, the arms, hand, thighs, legs, and feet; this practical method will be of considerable use to the artist, and if the separate parts in different views be also drawn from some of the antique figures, such as are placed in a similar posture, his taste and style will, at the same time, be greatly improved; it will naturally suggest itself, that such of the antiques as are robust and herculean, will be most proper for him at first to select, for such purposes; these objects will lead him not only into the knowledge of the parts, but he will naturally imbibe the right style of representing muscular motion from them. We are acquainted with no critic who has observed any anatomical error in the antique statues, or an instance in which the profound knowledge of anatomy does not appear; none who have detected a false swelling of the muscles, or any offensive display of anatomy; for those well-informed artists exhibited no more of their knowledge than was proper, as it respected the character of the subject, either delicate or robust, at rest, in motion, or in violent exertions.

This remark, we believe, is strictly due to the statues and fragments of the ancients, though it may not be so applicable to the valuable works, in other respects, of the great Michael Angelo himself; whose figures will, notwithstanding, be of a very improving nature, especially while the artist is in pursuit of anatomical knowledge; but he should be cautioned not to follow even this extraordinary man in representing these appearances too strongly, where it is not requisite; nor in giving the swelled motion of the muscles to the whole body and limbs, flexors, and extensors, at the same time,—which cannot be, but in rare instances, as in sudden starts of surprise or agony. A common-place book of the nature which has been recommended, besides the original exercise, will restore to his memory the impression which time may efface from it. This being the student's own work, a sight of it, and his other studies of the same nature, will more affix his recollection, concerning the subject he has formerly considered, than a much longer examination of prints or drawings by other persons can be supposed to do.

In order to prevent embarrassment amongst the great number of muscles, the following arrangement is made; by which the student's attention at first may be circumvented, and those demand his particular attention, &c.

<table>
<thead>
<tr>
<th>Temporalis</th>
<th>Rectus abdominis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zygomatricus</td>
<td>Latissimus dorsi</td>
</tr>
<tr>
<td>Malignor</td>
<td>Torus major</td>
</tr>
<tr>
<td>Sternohyoidea</td>
<td>Infraspinatus</td>
</tr>
<tr>
<td>Sternaugoides</td>
<td>Spleenius</td>
</tr>
<tr>
<td>Latissimus colli</td>
<td>Sacrohasmaris</td>
</tr>
<tr>
<td>Cleidomajoides</td>
<td>Longissimus dorsi</td>
</tr>
<tr>
<td>Trapezius or circularis</td>
<td>Glutus major</td>
</tr>
<tr>
<td>Rhomboides</td>
<td>Glutus medius</td>
</tr>
<tr>
<td>Pectoralis</td>
<td>Triceps</td>
</tr>
<tr>
<td>Deltoides</td>
<td>Pline</td>
</tr>
<tr>
<td>Biceps</td>
<td>Membranous</td>
</tr>
<tr>
<td>Brachialis internus</td>
<td>Sartorius</td>
</tr>
<tr>
<td>Genueulus</td>
<td>Gracilis</td>
</tr>
<tr>
<td>Anconaeus</td>
<td>Biceps femoris</td>
</tr>
<tr>
<td>Pronator teres</td>
<td>Semimembranous</td>
</tr>
<tr>
<td>Supinator radii longus</td>
<td>Vastus internus</td>
</tr>
<tr>
<td>Flexor carpi radialis</td>
<td>Vastus externus</td>
</tr>
<tr>
<td>Flexor carpi ulnaris</td>
<td>Reclus femoris</td>
</tr>
<tr>
<td>Palmaris</td>
<td>Tibialis anticus</td>
</tr>
<tr>
<td>Perforans</td>
<td>Unerus</td>
</tr>
<tr>
<td>Perforatus</td>
<td>Aquilavomusius</td>
</tr>
<tr>
<td>Extensor digitorum pedis</td>
<td>Extensor digitorum pedis</td>
</tr>
<tr>
<td>Extensor divisum digiti</td>
<td>Extensor pollicis pedis</td>
</tr>
<tr>
<td>Sternum major</td>
<td>Extensor pollicis</td>
</tr>
</tbody>
</table>

These muscles selected, and thus arranged, are few in number, and will not perplex the student; considering how important they are to his art, he should not be discouraged when informed, that with most of these he ought to be intimately acquainted. With respect to the pnoe, and one or two more of the internal muscles, it is necessary only to know that they exist, and where they are situated; but most of the other muscles, thus particularised, should be very familiar to him, not only where they are placed, but how they appear when at rest, in common action, or in violent exertion; and if the method we have recommended be attended to, a tolerable capacity will attain a great degree of knowledge respecting the muscles, as well as the bone of the human figure.

In the Royal Academy will be seen, before that already mentioned, another muscular figure, prepared by Dr. Hunter, one side only of which has the skin, fat, &c. taken off, that a comparison may be made with the other side of the figure, in which it may be seen how much thicker some parts of the human body are covered than others. The student ought to have information respecting this circumstance by other means, if he has not access to this figure. It should also be known that although there is a considerable difference in the size of the muscles in different subjects, between those who are accustomed to labour and exercise, and those who are more sedentary; yet it is the cellular membrane, or fat, which principally constitutes the difference between corpulence and meagreness, and not the muscular fleshy substance of the body; and also that children's muscles are in proportion with adult, according to their size and age; the painter will see the propriety of this remark.

One more observation is necessary to be made respecting the covering of the muscles, which is concerning those tendinous expansions that wrap up and bind them together in

Vol. II.
in many parts; these are usually strong, although thin and transparent; on this account they cannot in general be so well expressed by carvings or drawings, but in the dissected subject, which the student should inspect if possible; the limb and fat being taken off, the expansions are discovered by their white and shining appearance. We advise all young artists to obtain instruction respecting these aponeurotic expansions, and particularly the facia, which arises from the tendons of the biceps muscles inserted into the radius, and also from the palmaris covering the palm of the hand, and the expansion from the gluteus, where it is united with the trochanter, covering the muscles of the thigh; he should consider this as no trivial object of his concern. In the fore-arm the structure from the aponeurosis is so strong as greatly to affect the form of that part of the limbs where it passes over the pronator teres, flexor, carpi radialis, palmaris, &c. and it is strong enough to shew itself, even in carvings from nature; in the calf from an arm prepared by Dr. Hunter, this is beautifully preferred, although a dissected arm will shew it better.

It will perplex the student to account for such appearances in general, although he may have the most perfect knowledge of the bones and muscles, unless he be informed respecting this circumstance also. — In various parts of the body some of the larger veins appear, such will be found upon the surface of the subjjects, from which the painter makes his studies, and therefore he need not to be particularly directed, nor concerning those which redden the parts upon exertion, as the fore-arm, when the hand is strongly grasping a sword, &c. or the redness and paleness occasioned by the different passions of the soul. See Passions.

We might describe the action of the muscles we have selected, and in the order they are arranged; but this would be defending to particulars more than we proposed, especially as they are best learned under the immediate instruction of an anatomist, pointing them out on the living figure, or which the student may observe upon his own perfon in a glass, (a method much recommended by the late Dr. Wm. Hunter,) or upon a living muscular subjject. We shall, however, particularize a few muscles as specimens, in order to lead him into the proper method, by which he is to proceed with the rest, and also prevent some observations for his consideration.

A figure standing gracefully cannot, with propriety, be said to be in motion or exertion, but many of the muscles are in exertion to produce even this effect, i.e. those which support the figure in the erect position, especially the muscles of the standing leg and of the loins.

When the body is prepared by the mind to receive and support a weight, the muscles are in exertion, prepared to support what it expects to be received; should a man offer to another any heavy weight, covered with a light subfubance, as cork, &c. bearing it with such an air as to imply it was not heavy; from the mind being thus deceived, there would not be a preparation or exertion of the muscles adequate to support it, and consequently it would fall and endanger his toes, although the person would be more than capable of supporting it under other circumstances. On the contrary, if a body of a light nature be thus preferred, covered so as to represent a very heavy subfubance, and the person conveying it seems to exert himself as bearing a considerable weight, so soon as the palms of the hand come in contact with the pretended heavy subfubance, the muscles would be so prepared to exert themselves, as immediately to upheave it into the air. This may be seen also in the muscular exertion of a person catching a ball projected with a strong degree of force. An artist may obtain information respecting the propriety of muscular exertion, from the ancients, by placing a living person in the action of any of the antique figures; as perhaps what they represent the figure doing: trenchly comparing with the figure the several muscles and limbs, as well as the general form, whether standing gracefully, as the Antinous, more exerted as the Apollo Belvedere, or in violent exertion, as the Laocoön.

This method is the best we can recommend for the improvement of the student's taste and judgment, other methods will conduces to his knowledge of the parts; but this will communicate the idea of graceful motion and the proper expression of the figure. Studies from the living figure should be continually made, and those who are wise and are not prevented by other avocations, should in England, as in France and Italy, never forsoke the life academy, in which school much of practical knowledge will be learned; but the student's taste must be formed from the antique figures, in all that relates to proportion, elegance of form, and anatomical propriety. A sound knowledge of anatomy, is the ground of the painter's art; it is, however, better to know and produce the effects like the ancients, after their deep researches, so as to hide the artifice by which those effects are produced. Art of edare artem.

Although it is not our intention to describe the motions of the muscles, included in the list, yet we shall notice a few of them and some other circumstances, as a specimen. Dr. Hunter has often been heard to say, that the principal method he used in order to attain the knowledge of muscular motion was by consulting his own body, because he could give the action to those muscles he wished to examine, and he strongly recommended this method to others. This trial, from a eminent character, will be adopted so far at least, as it respects the intricate muscles of the fore-arm, and by a glafs he may inspect the front of the whole figure; but such parts as cannot thus be examined, must be sought for in another person. When a living muscular subject is placed before the student, (with an affiant to oppose the effort which he is to make, in order to retain the muscles in action for a short space of time, while they are under immediate notice,) the commencement may be with the head. The maffeter and temporal muscles will be in exertion when the teeth are strongly pressed together; this exertion will be seen in a man when he is lifting a great weight; these muscles should be felt as well as seen, that the mind may be quite satisfied respecting them. The effect of the stylogmatiac muscles in drawing up the corners of the mouth will be perceived when the subject is smiling, &c. Although these muscles do not always shew themselves, they ought to be considered attentively, as they have a great influence in expressing the passions. Sternohyoides will be in action when there is an attempt to swallow any thing. We suppose all the muscles in our arrangement have been well considered; and that the student has become acquainted with their form, origin, and insertion, and also with the use of the separate muscles.

The sternomastoideus draws the head downwards, forwards, and sideway; in order to notice the action of this muscle, first let the man turn his head over the right shoulder, when it will be found that the portion of this muscle, which is on the left side, will belly out, consequently it will grow tenfe, and shorten itself, while that portion which is on the right side, will be longer and flaccid; this will be evidentiy seen, and may be felt and measured with a string, that the student may be perfectly informed respecting a muscle so important to all artificers. The face should be then placed in the centre, and the person must be then directed to endeavour to bring his face down upon the breast,
ANATOMY.

break, while an assistant places his hands upon the forehead of the living model, to oppose his bringing it down; while making this attempt the thoraco-mamillaries will be seen in strong action in both portions, and be very conspicuous; but when the head is in the centre, and in each way in the same direction with the body, and that perfectly upright, this muscle will not so visibly shew itself, excepting near the insertion in the scapula.

The pectoralis will be seen in very strong action, by the man endeavouring to bring the fore-arm to his breast, the hand being lifted up about the height of his shoulder; if the assistant, at the same time, make an effort to keep the arm outwards. If the man with his arm thus raised, move it inwards and outwards several times, an opportunity will be given to observe the motion of this muscle; so also if the hand be lifted higher than the head, then brought downwards and inwards, he will also perceive that the pectoralis should properly be considered as a muscle belonging to the arm, notwithstanding it is situated upon the breast.

Thus the flexors and extensors, pronators and supinators, should be examined in motion, after their place and use have been rendered familiar by the order and method of study we have been detailing. What has been advanced upon the study of muscular motion in a few instances, we hope, will be proper clue to all the other external muscles; many errors may be avoided, and much time will be saved, if the several parts be pointed out to the student, by a skilful anatomist, who will demonstrate to him, that although it may be proper to remark the action of the separate muscles by themselves, yet still no action of a limb is performed without the cooperation of several muscles. This should become as evident to the mind of the artist, as that the detoid elevates the humerus, or that the biceps is a flexor of the fore-arm.

He will, by such an instructor, be informed that some of the muscles, or parts of them, are so thin, as to shew the motion of those which lie underneath, as the latissimus dorsi; and although others are deeply seated, yet they have great expression in some actions, as the longissimus dorsi, which will become very conspicuous, when the body of the figure, being bent downwards, endeavours to regain an erect position.

The student should let the figure before him raise his head and depress it again; turn it over one shoulder, then over the other; this may be done quickly and repeatedly, while he makes his observations on the muscles in the neck.

He should direct the man to bow his body downwards, and bring it up again repeatedly, at one time more quickly than at another, while he observes the motion of the rectus abdominis, &c.

The model should also be directed to draw in his breath, to shew the boundary of the true and false ribs, which must be well observed. He should make him stand upon one leg, then upon the other, shifting them continually more or less quickly, while he notices, with great strictness, the change this will cause in the shape of the ilium, and the other parts of the pelvis; on this we lay particular stress, as in a preceding instance, when directing the study of the bones, without the muscles.

He may now examine the motion of the patella, and the muscles rectus and vastus of the thigh, with the same care.

He should cause the man to lift up one foot, and bring the heel to the other knee, in order to exhibit the motion of the vastor muscular.

By quickly moving the toes, the man will shew the muscles in action, which give them their motion.

He should be directed to elevate and depress the arms, as well as bend the fore-arm, to shew the performing muscles of those parts; to turn the palm of the hand upwards and downwards, which will exhibit the pronators and supinators. The wrist bent and extended, and the fingers quickly moved will shew their muscles.

When the back of the figure is seen, the same method should be pursued to express those muscles which are behind upon the trunk, and the extremities; carefully noticing the motion of the scapula, especially the different situations of that bone, when the arm is lifted upwards, and brought downwards; likewise examining the motion of the muscles in the side view of the figure in the same manner.

Particular attention should be given to those muscles which form the edges of the armpits, and of the hand and fingers of the thighs; and lastly, as study and drawing ought to be considered by the painter as synonymous words; we advise that such things as strike the mind, when they are newly discovered, should be noted by the student in a book kept for the purpose, with such sketches as may tend to recall to his mind in future, or defer to others, what cannot be so well conveyed by words alone. Advice of this sort has been repeated under each head of study, as we know the consequence it may be of to some of our readers.

Dr. Brisbane judiciously observes, respecting comparative anatomy, "that the painters should at least be acquainted with the anatomy of those animals which are most commonly introduced into their works, particularly of that noble and useful animal, the horse, and of that faithful companion of mankind, the dog: as for other animals, as they more rarely appear in pictures, and are less particularly known and attended to, a slighter representation of them may generally suffice." We, however, believe that birds should be examined in the interior, as opportunity offers, especially the skeleton. In respect to the horse, we recommend the painter to read, and examine the valuable labours of Mr. Stubbs and Mr. Blaine, which we conceive to be an honour to our country. He may also be furnished with an anatomical chart of an horse, which is fold at the shops; from whence information in this respect may be derived, especially after the human figure has been well understood; for, by knowing what are flexors, and what are extensors, in general, the student will be in a great measure informed how they will act in this animal. Assistance will be also gained by observing the animal itself, which he will have before him while he is painting it. Some animals, but especially leopards and tigers, are formed so much like a cat, that this common animal will be very useful to him; their muscles may be judiciously expressed, if a dead cat be put into the posture of the animal to be represented, before its muscles are cold, and then the skin being taken off, it will be an almost perfect direction to the painter, who is familiarly acquainted with the action of the muscles in general.

See the names of the muscles of the human body in the Cyclopaedia, their character, nature of their fibres, origin, insertion, and uses, to which our readers are referred for more particular directions concerning them.

ANATOMY, Veterinary.—Human anatomy, in point of interest and importance to mankind, evidently holds the first place; that of brutes, particularly such as are domesticated and employed for various important purposes in society, in respect to their anatomy, holds the second place. The anatomy of these, without being entered upon so circumstantially as the human anatomy, deserves a due share of regard equal to its importance. To describe each part of the horse individually and separately, would be often only repeating the more elaborate

B b 2
descriptions
descriptions of the human anatomy more frequently than those but little convenient with this subject would suffice; many of the fishes, and even the mythology of the trunk and extremities, often correspond in their principal circumstances: there are, however, great and various differences in the structure of the two animals, which it will be our duty more particularly to describe. For the same reason that the study of the human anatomy is useful, as it tends to preserve the health and lives of men, equally so is that of brutes, inasmuch as it tends to save the lives of these useful and often costly animals. Nor will it be necessary to defend far down the chain of quadrupeds; the few only which from their domestication are rendered servicable to mankind, deserve this particular notice; in conveying anatomical research farther among the brutes, and in descending into the more subordinate orders of animated beings, the study of their anatomy receives its share of importance, in proportion only as it serves to illustrate the uses and functions of particular organs and parts of the more complicated and noble animals, from the very various figure and structure these parts are found to assume in them, from which much information of their use may be obtained; and then, instead of veterinary anatomy, it becomes properly the subject of, and arranges under the head of comparative anatomy.

This science may be properly termed veterinary anatomy, which, in strict propriety, should include only those animals employed as beasts of burden, as the root of the word (volo corde) from whence it is derived implies; but it is necessarily extended to all domesticated animals employed in the service of man. The horse, the ass, the camel, the ox, the hog, the dog, the sheep, &c. rank principally under this class. The anatomy, however, of the horse has only been much cultivated, and that but of late years; various establishments of considerable munificence have appeared within the present century for the cultivation of this fudy, as that of Charenton near Paris; Lyons, Berlin, London, Copenhagen, Vienna, &c. These institutions, together with the exertions of individuals, have begun to advance this science into respect and estimation; the anatomy and surgery have already received a high state of cultivation, as being more easily attainable by direct mechanical means; the progress of medicine is more slow, and it will be more readily admitted by those most conversant with the subject, to be at present in a state of great obscurity; and from certain difficulties attending the culture of medical science in general, and particularly in these animals, a long period will be necessary for it to obtain much constancy or precision; small effects are with difficulty traced in mute animals, and no feeling or change in them can be described or known, unless powerful enough to be externally visible. On the other hand it is but just to remark, there is a more free and unlimited opportunity of experimental inquiry and research, as their diseases are fewer, and arise from less complicated causes, than those of men.

This science, though it has long lain in a neglected and degraded state in this country especially, and throughout all Europe, yet has not wanted men of refinement for its cultivators. Among the writers who have distinguished themselves in this line of science are to be enumerated among the ancient Romans, Vegetius; he is supposed to have lived about the time of the emperor Valentinian the Third, in the fourth century, and is generally considered the fame writer, whose book "De Re Militari," has been so much admired, as giving the best account of the military tactics and warlike weapons of the ancients; his treatise "De Arte Venenaria," is not less curious in the present age, as handing down to us the practice and opinions on the veterinary art at a very refined period of the Roman empire: his work is principally a compilation from the most esteemed authors of his own time; and especially the Greeks; the prefaces, or introductory chapters to his four books carry with them sufficient evidence of their author, and are remarkable for the firm and elegant language. Better reasons or apologies for the cultivation of this science have, we believe, never been penned; and though medical reasoning and physiology were at this period in a low state, till we view with surprize, that the practice was very often not materially different from that which would be suggested by the most refined reasoning of the present day. Columella has treated largely on this subject; he lived prior to Vegetius, in the second century, under the emperor Tiberius. Cornelius Celsus, about the same period, is also underflow to have written on this subject, but of his work there are unfortunately no remains. At a still more remote period than this we find Greek writers on this subject of considerable note; no less than seventeen are enumerated by Ruelli, who was physician to Francis I, king of France. The surviving fragments of these authors were edited by Ruellius, by the orders of his munificent patron, first in Latin, in folio, in the year 1550; afterwards the original Greek text, in Svo, in the year 1537; both splendidly printed, so as fearfully, in this respect, to be surpassed by any thing of the present day. To this collection of essays, Ab-yrus, Eumenelus, Hierocles, Peloaeus, Theonellus are among the chief contributors; their writings consist of dissertations on the various diseases of the horse, beginning moilily in the epistolary form, with the usual intimations in the among the Greeks. We learn from Suidas, that Abyrus was a Bithynian by birth, and served under Constantine in the Scythian war. Hierocles appeared in the courts of law in trials respecting those animals, and did not, like Theomnello and Abyrus, serve in the armies of the emperor. The period in which the others lived there are no means left of ascertaining; it appears, however, to be most probable that they lived at an early period after the formation of the empire. In these writers the symptoms of some disorders are pointed out with much acuteness, in which consists the greatest value of their writings. Their prescriptions are often ill-digested farragoes, composed of many incongruous ingredients, some but little known, and others altogether disguised at present in medicine. In the administration of remedies of a surgical nature they were more happy, especially that of topical bleeding, which they well understand, from every part of the body. Xenophon has also treated expressly on these subjects in twelve short essays or chapters respecting the training, management, and external figure of horses, and is the most ancient of all the writers extant on horses, being between three and four hundred years before Christ. At the decline of the Roman empire this science underwent the general fate of all the other sciences, and suffered an occultation longer than almost any of them. A period of more than a thousand years elapsed without adding as much to the human knowledge of this subject as has been done within the last twenty only in Europe: during this period, however, of the obfuscation of science, at an uncertain date, was propagated the art of shoeing horses' feet with iron, and which at length became general; an art that has been variously practiced, and never yet reduced to certain rules. It appears also, that, during this period of declining literature, the veterinary art ceased to exist as a distinct profession, or was practiced so feebly, that, on the discovery of the art of shoeing, what knowledge then remained of it was easily transferred to the working smiths, who alone could practice this art. Its fitter science, human surgery (it would hardly now be credited), underwent a similar fate; and, for the want
A N A T O M Y.

And in this place we cannot help noticing a singular barbarism, that appears to have been the offspring of the above writers, which has found its way into common use, in one of the terms belonging to the veterinary science, and which we conceive ought no longer to pass uncorrected, as terms misapplied in science are always confusing, and oftentimes lead to error. The word 

*ferrari* is at this present time universally in this country employed to signify the whole veterinary art, and is a barbarous mode of spelling the word *ferrius*, as it is immediately derived from *ferre*, French, to shew a horse, and that from the radical *ferrum*, Latin, iron; and should signify no more than what the word implies, the application of the iron shew to the horse's foot. The want of regular practitioners in the veterinary art rendered it necessary that the ferrer should adopt the art; and hence the whole art became included in the general term ferrariy. In reducing this word to its proper spelling, for there can be no authority to justify the present mode of spelling it, and in expunging it, we commit no violence on the usage, or introduce any innovation on the English language, for there exists sufficient testimony to prove that the old English writers did not spell it as we do at present; as in Blundeville, who wrote during the reign of Queen Elizabeth, which, according to Johnson (see preface to his Dictionary), was the purest era of the English language, we find it spelt, with great propriety, with an e; see book fourth, in his "Address to the Gentlemen of England;" he writes, "All horses, for the most part, do come into their decay sooner than they should do, by one of these four wanies: that is to say, either for lacke of being well bred, or through the rashnes of the rider, the negligence of the keeper, or else through the maliciousnes of the *ferrer.*" Again, in the same chapter, "Martin Ghelly, of Arton, called Martin Alman, chiefe *ferrer* to the Queen's majestie;" and so on throughout the work. The title of Earl of FERRERS and DERBY might also be adduced in proof of this being the ancient and proper mode of spelling this word, the arms of this nobleman being quartered with the horse-shoe, and formerly accompanied with some singular privileges to the family. This word, therefore, reduced to its original and proper signification, only relates to the art of making and applying the iron shew to the horse's foot; and in this sense we shall have occasion to employ it, as the veterinary art embraces and all the other branches of the science. Indeed, on pursuing an historical retrospect of the state of this science in England, it has seemed to us, for the last hundred years and upwards, to have been taking a retrograde course, which we feel rather disposed to attribute to the unbounded rage for horse-racing, which, while it was of great service to the British nation, by encouraging the bell breeds of strong and fleet horses, was of disadvantage, by promoting an artificial vaccinated taste with regard to these animals, which overawed all attempts at model inquiry respecting their diseases. The knowledge of horses was supposed to confound in a sort of intuition, which was not to be defined or taught to others. Jockeys, sharpeners, and gamblers, were supposed principally to possess this knowledge, which was all that was thought necessary respecting them, and all farther information could be of no use. Jockeys before this period were of small note, but from being entwrought with the secrets of the course, soon became engines of great importance in pursuing this species of traffic, and men at length were brought to reign their understandings to them, imagining it a subject too mysterious and difficult for them to comprehend; hence also appears to have arisen the great difficulty of founding a seminary for the study of veterinary medicine and surgery in this kingdom, which was almost the last country in Europe that adopted this salutary step for the improvement of the art.

A more
A more free and candid mode of considering this subject led me to suppose; and a style of writing and enquiry, which
must (however it may labour under difficulties for a time)
bring both light, and, with the great improvements in che-
mistry, and all the arts and sciences which can promote it,
will soon place it on a footing far beyond what was known
in ancient or modern times.

Having gone through what appears to us to be the out-
line of the history of the art, as far as we are at present
acquainted with it, we shall immediately pass to a descrip-
tion of the skeleton of this useful animal.

On taking a general survey of the bones of the horse,
(see Plate 1) we may divide them into those of the head,
spine, trunk, fore and hind extremities; and here it will be
proper, in pursuing this general view of the skeleton, to
remark a circumstance that is not universally known, viz.
that the horse, when in the habit of proceeding and leaping,
comes within the square, the head and upper part of the
neck only being excepted; and this applies alike to horses
of every description, as well as the race-horse as the dray-
horse: to explain this attention, the dotted line is given,
pointing out the limits of the figure. If this principle was
more generally known to the painters and statuary, we
should not have so many ugly and nefariously disproportioned
animals from their hands. This subject we propose to treat
of more extensively under the article Symmetry of Horses.

On a further examination into the general properties of
the skeleton, we propose to show, that the weight of the
horse is supported by a counterpoise of the angles of the
superior part of the fore and hind extremities, as the shoul-
derd-blade, or scapula, a, b, c, d, e, from the withers, leans
obliquely forward, forming an obtuse angle with the arm, or
humerus, f, g, h, i; in the hind extremity the reverse of
this structure is observable in the position of the bones, as
the hip-bone, or ilium, a, b, c, d, g, and the ischium, f, f1,
which pass in a sloping direction backwards, and form with
the thigh-bone, or femur, b, m, k, n, an obtuse angle for-
wards. Now it is evident, that the angular position of these
bones being opposed to that of the shoulder and arm, will
readily, by acting in opposition to it, support the weight of
the body which is placed between the two angles; the rest
of the two extremities are disposed nearly in the perpendi-
cular line to these angles, and support the weight as simple
columns, still, however, following, in a slight degree, at the
hocks and knees the above angle of support. From this
curiosity view of the entire skeleton, it will be necessary to
pass to a more detailed examination of the bones which
compose it, without being too minute for an elementary
work of this kind; and we shall begin with the head, which
is formed of the skull, face, and jaws, and which are di-
visible into about 32 distinct bones; the skull consists of 11
bones; the two frontal (see Plate 1.) bones, a, b, the two pa-
tietal, c, four temporal, b, i, k, l, one pteroid, one ethmoid,
and one occipital bone, d, e, f, g. The temporal bone in the
horce is made up of two distinct portions, the squamous and
petrosus, which in this animal always remain distinct. The
occipital bone differs much from the corresponding one in
the human skull, forming the top of the head, and is pof-
fed of very great strength and thickness, with a deep de-
pression on the centre, where the cervical ligament is at-
tached. The face is made up of 21 bones, as follows, two
nasal bone, (see Plate 1). r, two angular bones, m, two malar,
or cheek bones, l, two superior maxillary, n, o, p. The in-
ferior maxillary bone, q, is not found in the human skeleton,
and has been termed by Prof. Blumenbach, the inter-
maxillary bone; it was supposed by him for a considerable
time to be peculiar to the brute, and would serve for a dif-
tinctive mark by which every species of the mammals
might be distinguished from the human; but latter researches
have, however, discovered that no such bone existed in some
of the long-tailed monkeys, though, it is worthy of remark,
that the same bone is found in several of this tribe of animals
with short tails. There are two superior palatine bones, two
inferior palatine, two superior turbinate, two inferior, two
prepygoid bones, and the vomer. The turbinated bones
are particularly large in the horse, as are also the maxillary
cavities; and by the elongation of the face, the head of
the horse is extended in length beyond almost every other
quadrapod. Two thin plates of bone, almost distinct from
the palatine bones, and divided by a future, following the same
to the direction as the large palatine, are observable in the space
between the malar and molar teeth of the upper jaw:
these might be termed the lesser palatines; they are, how-
ever, merely processes of the intermaxillary bones, and not
divided from them by any future. The intermaxillary bones
in this animal contain the whole of the inferior teeth, but
not the canin, or tusks, the future pitting between them.
The inferior maxilla, or rather, in the horse, the pectoral,
or jaw bone, is formed of one bone, at least in the adult,
and is not, as in the human, made up of two bones, united
by sutures at the chin; it is necessarily longer and deeper
than the jaw of most other quadrupeds. The jaws are fur-
nished with alveoli, or excavations, which receive 40 teeth,
viz. 12 upper, or incisor teeth; 4 tusks, or canine teeth;
and 24 grinders. The tusks are never found in the horse,
though they are in the dog, and some other carnivorous
animals; the three first pair of molar teeth are also
found in the horse, and receive a second set; the three last
pair are permanent; the first set of incisors, or milk teeth,
are also found as in all other animals. For the growth,
structure, and other particulars of these bones, and some
remarks respecting the indications of the age, we refer the
reader to the article Teeth of Horses. The face is a canal
of bone, of a very elongated conical figure, and, in the
horse, is made up of about 32 pieces, independent of the
bones of the tail, which is formed of about 14 bones.
The cervical vertebrae are seven in number, which it has
been remarked by anatomists, prevail in all quadrupeds,
whether the neck be long or short. These bones in the
horse are altogether different from those of the human ske-
eton in their formation: the body of the bone is consider-
ably more elongated, and the processes of a different figure.
The first vertebra in the horse is termed, as in the human
skeleton, atlas, but evidently with not so much propriety,
as the head of the horse is rather suspended from this bone
than resting upon it; it differs essentially in figure from the other
vertebrae of the neck, being more extended laterally, and
in being without any dorsal apophysis; it is also much shorter
than any of this range of vertebrae; it receives anteriorly the
condyloid processes of the occipital bone, and likewise poste-
riorly the tubercle of the second vertebra within its articu-
lating cavities.

The second cervical vertebra is in figure almost the reverse
of the former, being long and narrow in its body, the dorso-
proces, or crita, very elevated and enlarged, rough on its
upper surface, for the strong insertion of ligament; and this
spine, or elevated plate of bone, at its posterior part, is
bifid, or cloven, with a middle depression, or foria, affording
a stronger and wider surface for muscular and ligamentous
attachment. This vertebra has no superior oblique pro-
cesses, and enters the former bone by a half tubercle, or ca-
pitulum, exposing the spinal marrow on its upper part, and
is kept in its situation by two broad lateral articulating sur-
faces.

The
ANATOMY.

The other five bones, which compose the neck, are of a more uniform figure than the two former, confiding of a body of bone, somewhat lengthened, having a large cylindric perforation for the passage of the spinal marrow, exter-}

nally of an irregular, almost triangular, figure, having various angular and spiny elevations of bone, which are termed according to their situation, as the spinal apophysis, the superior and inferior oblique processes, the transverse and anterior processes, which are intended for the strong insertion of muscles, tendons, and ligaments for the support and motions of the neck. The articulating processes of these bones confit of a round head of bone, the posterior articulating surface of a flat feelance to receive it. This knob of bone is observed by Stubb's to be wanting in the sixth vertebra of the neck; these bones possess also various perforations for the transmission of blood vessels and nerves.

The dorsal vertebrae are 18 in number, sometimes 19, and are remarkable in the horse for the length of the dorsal or spinous processes, extending from the first to the eighth, and which form what is called the withers of this animal, and against which the superior part of the shoulder is brought to recline.

The dorsal vertebra differ in structure from the cervical, being much shorter in the body or solid part of the bone, the spinal apophysis being longer, the anterior processes wanting for the underfide of these vertebra, and thofe of the joints present a smooth rounded semicircular surface to the vifera. The interposing cartilage, or cartilaginous, in the vertebral column, is not in the dorsal vertebra; it makes in the recent skeleton more than an eighth part of the whole length of this part of the spine.

A dorsal vertebra of the horse poifles almost a similar number of processes as are found in thofe of the neck, though very differently situated and proportioned; these processes are all placed superioriy to the two articulating surfaces of the ribs; and it is almost unnecessary to repeat that they poifles foramina for the passage of nerves and blood vessels, and the spinal marrow.

The lumbar vertebrae. Where the ribs terminate, begin the lumbar vertebrae, which are six in number, and poifles very much the fame poifles and character as thofe of the back. The spinous processes are stronger, the lateral processes broader and longer, and sometimes articulate with the body of the vertebra, and in some measure serve the purpose of spurious ribs. These bones are often united into one mafs in the horse, by osseous deposit, as are also thofe of the back.

The five next bones of the spine are united into one mafs in the adult, to give strength and energy to the various motions of the hind quarter, and in their consolidated state are called the os sacrum. The interlites occasioned by the union of these bones on their underfide, form what, at first sight, appear to be huge foramina, being rounded, as thofe generally are.

The superior part of this bone poifles longer spinous processes thofe of the loins, and admits a vallf feelance for the attachment and depofit of muscles; and here are placed the muscles of loco-motion, which, in all animals, are the lafit in the body.

On the superior surface of the transversf processes of this bone rei the flat inferior surface of the ilium, to which surface it is attached by strong ligaments, fo that the body of the horfe is, as it were, entirely fiupended by ligamentary and muscular tabfluence, for the scapula has no other than this species of attachment: hence the entire exclusion of a solid bony articulation of the extremities with the spine must often every motion of the animal to itself, and consequently to what it has to carry.

The remaining portions of the spine, confiding, in the horse, of 18 pieces, gradually lose the structure and properties of the foregoing parts of the spine, and become simple rounded cylinders of bone, solid and enlarged at the points of articulation, and towards the extremity of the tail are of a confitence nearly cartilagious.

Of the trunk. The coxal, or ribs, are bones of a curved figure and elafic, serving to defend the principal part of the thoracic and abdominal viscera; and in the horse are generally 18 in number, sometimes 19; these are articulated by one extremity to the dorsal vertebra by two surfaces, a lateral and terminating articulating surface. The eight flrfl of these ribs terminate on the sternal itself by an equine cartilagious tabfluence; the others do not reach the sternum, but are attached to each other by a long surface of adhesion of the same kind.

The sternum in the horse is composed of seven pieces of bone firmly united, and differs widely from the human in being curved, and, instead of being flattened, is anteriorly acute, like the prow or keel of a vessel. This anterior part is also of an oblong-cartilagious consistence, terminating above by an obtuse eminence above the articulation of the first rib, and inferiorly by the faceticular cartilagious of an oblong figure. This structure enlarges the chest, and gives room for a stronger attachment of the fore extremities to the shoulder for the support of the body.

Of the ilium, ischium, and pubis.—These we may consider as forming part of the trunk; they are, however, only attached to the spine by ligaments, having no actual articulation, and might be referred to the hind extremities. These bones form collectively the haunch, the thigh being included, and internally the pelvis.

The ilium, or hip-bone, in the horse, is not of a rounded figure, as in the man, but is extended in three directions, forming three powerful branches or processes, which may be denoted, by way of distinction, the superior, inferior, and posterior rami, the three extremity margins or edges of the bone included; between the above rami we propose to distinguish by the terms anterior, superior, and inferior crista. The ramus inferior is shorter than the others, and obtusely truncated, giving an anterior and posterior pointed angle. The extended branches and wide upper surface of the ilium give a place for the attachment of several strong muscles which are thus situated; to the greatest mechanical advantage, to the points on which they are to act, giving with the ischium a magnitude and power to the buttock not equalled perhaps by any other animal.

The ischium in the horse is remarkably extended, forming a strong process posteriorly for the reception and attachment of powerful muscles, and which process is entirely wanting in the human skeleton. This elongation of the ischium may be denominated the processus ischii from its figure: this singular process dips the muscles attached to it very advantageously for powerful action on the thigh and leg, by removing them to a distance from the centre of motion.

In the os pubis there is to be remarked the very extraordinary depth of the lymphatic, affording an extensive surface for muscular attachment.

The above three bones unite in forming the acetabulum, or cup, which receives the head of the thigh bone, in both the human and equine skeleton.

There appears to be a slight degree of motion of the ilium on
on the transverse process of the sacrum; arising from the ligamentous connection between these bones; in the dog this motion of the shin is more evident, and on dissecting this part we have observed a regularity which, we believe, has not been generally noticed, and which is worthy of remark in this place. The os human in this animal arises to considerable advantage over the transverse processes of the lumbar vertebra on its internal part, that the middle of it, instead of being occupied as in other animals with the iliacus internus muscle, is entirely filled up by the muscles of the back, and the above muscles entirely wanting. We may, perhaps, illustrate the cause of this peculiar structure by remarking, that the action of the dog, as in gallopping, is performed principally by the muscles of the back, in the horse it is more effected by the action of muscles of the extremities.

In taking a view of the figure of the pelvis in this animal we may observe its depth is greater, its area wider, and acts more in the line of the spine than in the human.

Of the extremities.—The great variety of accidents and abodes to which the extremities are liable, and the peculiarity of structure which attends these parts in the horse, render a knowledge of them more interesting and necessary to the veterinarian or amateur in these matters than any other part, and will engage us to consider them with more minuteness and detail than we have done in executing the preceding imperfect outline of the description of the other parts of this animal.

The extremities of the horse are constructed of much the same members as the human, though very differently distributed and proportioned; the human hand, the first of all executive instruments, is here converted into the foot, useful only for support and progression; the hand grows more complex towards its termination, while the horse's foot becomes more simplified, following the purpose for which it is designed. Notwithstanding, these parts in all quadrupeds have a relation to each other, and pose the rudiments which even appear superfluous, but serve to point out the connexion between the different families of them; as the hyloid bones of the horse are evident rudiments or relics of the two outside metataral bones of the digitated animals, and appear to serve no very important purpose, as the mammae or nipples of the male quadrupeds are rudiments void of use of the same parts, which are highly useful in the female.

Of the fore extremity. The scapula, blade bone, or shoulder of the horse is considerably lengthened, and is considerably narrower than the human, being of an oblong triangular figure, poliellizing neither acromion nor coracoid processes, though there is a prominent, obtuse point of bone in the situation of the latter, and a rounded eminence often on the spine of the scapula, which denotes the situation of the former. The horse, we may observe, pose the scapula in this part no proper back, for the withers can hardly be considered as such, therefore the scapula does not materially pass out of the plane of the os humeri, or arm, as in the human, but is simply reclining on the side, its upper part reaching near the extremities of the dorsal apophyses or withers, its lower part directed forwards, and approaching the stilt rib and upper extremity of the ilium. The under face of this bone is concave, and is found in old horses covered with sulci for muscular attachment; the upper surface is divided longitudinally into two unequal parts by a bony ridge, called its spine, affording surface for the attachment of various muscles and tendons; the base or broad extremity of the scapula is furnished with a cartilage, which embraces the muscles of the withers; its small end pose the articular cavity which receives the head of the humerus, and is termed the glenoid cavity. The motion of this bone is different from any other in the body, not moving upon either extremity, but librating round a point which is situated near the centre of the bone.

Of the humerus, or arm. This bone is particularly short when compared with the bone of the human arm, scarcely passing beyond the line of the chest, and is proportionally stronger, passing from the point of the scapula in an oblique direction backwards; and instead of partaking of the various motions of the above bone, pose but one motion, that of being brought from its inclined position forwards to the perpendicular line of the body. This bone pose the various strong elevations and depressions for the lodgment and insertion of muscles, of which there is hardly any trace in the bone of the human arm. It articulates inferiorly by two strong conveys with the radius. It is this bone, often being too long, that brings the horse's fore-legs too much under his body, a fault much disliked by the amateurs of riding horses; this may also arise from the shoulder being too upright. The fore-limb of the horse not requiring any rotary motion, as in the human arm, we find no distinct os ulna, but the point of the elbow, or olecranon, being very much enlarged and extended in length, is firmly fixed to the back of the radius, sending off a process of bone downwards, which is brought to a point about the middle of the radius, uniting firmly with it; from its position being fixed in respect to the radius, it can perform but one of the offices of the human ulna, and serves for the attachment of those muscles, which bring back the fore-arm, from its bent position forwards, to the straight line, under the pressure of the weight of the body. For the os radius, see Fig. 1. l. l. The radius or fore-arm of the horse is nearly straight towards its middle and inferior extremity, bending a little forwards; it is usually mistaken for the arm of the horse by casual observers, its posterior surface is flattened, it grows broader at its extremity, forming two conveys, poise the motion, upon the bones of the knee, admitting an extent from the perpendicular of the leg, considered together with the bones of the knee, to a very acute angle backwards.

Bones of the carpus, (see Plate 1. figs. 1, 2, 3, 4, 5, 6.) are the bones which compose the carpus, vulgarly called the knee of the horse, and correspond to the bones of the human wrist; these bones do not afford a similar extent of motion with the same bone in the human carpus, not admitting any motion forward beyond the perpendicular line, nor of any lateral motion whatever.

On a first view of the bones of the knee of the horse, their position seems reversed to the human wrist, the olecranon or elbow being placed at the back of the radius, and the flexion taking place in a direction towards it; and the bones which form the back of the wrist appear to form the front of the knee. This inversion, however, is only apparent, and not really so, as by a flight rotation of the radius, the human wrist may be placed in the same relative position to the ulna, as the bones of the knee of the horse are with respect to it.

The knee of the horse is made up of seven bones, sometimes eight, a very small, round bone being often superadded on the side, about the size of a pea, and is not preserved in the generality of the skeletons of the horse.

This joint is formed of two regular layers or phalanges of bone, the upper phalanx or row being placed upon and between the divisons of the other three in each phalanx, the 7th being thrown behind.

The first layer, viz. that placed on the cannon, has little
or no motion: the second layer has considerable motion on the first as those have also on the radius, making in their total flexion about 30 degrees of a circle.

To strengthen this joint, and to secure these bones more firmly in their situations, they are formed with alternate elevations and depressions both in their upper and lower surfaces; this joint is also rendered stronger from having an articulation, which admits of motion in one direction only, that of flexion, and that in the opposite direction to the flexion of the hock, tending by this means to support the animal, as we have before observed.

The weakness of this joint, called knuckling in horses, observable in those that have been overworked, or grown old, does not, we believe, proceed from any defect of the joint itself, but from the rigidity of those muscles which serve to bend it, and especially those which pass to the foot, the extensors, which are comparatively small, not having sufficient power to counteract it.

These bones have but little resemblance to those of the human wrist, though they occur in the same number; it will therefore answer no good purpose to force an analogy between them by calling them by the same names; for the use of the names deduced from the human anatomy makes a perpetual recurrence to those names necessary to see where they may, without impropriety, be introduced, and where they cannot be admitted; it is this circumstance which has rendered it absolutely necessary to compare both the skeletons in this present essay.

These bones might very naturally be denominated from their situations as follows; the or externum superior and inferior, or internum superior and inferior, or medium superior and inferior, or pollicem, or accessorium, and this would be a very desirable thing, for they would belong to a great number of quadrupeds without being misappalled. There is, however, a confiderable objection to their adoption, which is, that in describing the attachment or infections of ligaments or muscles, it would render a circumvention necessary if any other language was used, which would be attended with inconvenience, and for which reason we decline the use of them.

Mr. Stubbs, in his excellent work, in following too closely the names of the bones after the human skeleton, has been betrayed into the use of names, which cannot well be admitted in the equine anatomy. The or facifom is a very small rounded bone in the human, not larger than a pea; the or pollicem, though a perfectly distinct bone, and differently figured from any in the human anatomy, has been described by Mr. Stubbs under that name.

If it were desirable to make any analogy between these bones and the human carpels, we should on comparing them remark, that in the horse’s knee there is a confolidation of some of the human carpal bones, and a separation or division of others; there is, however, the small accessorium bone included, the same number in each, viz., eight bones.

The or trapezoides and magnum appear conjoint in the horse, forming one large flat bone, whilst the bone in the horse, which serves the purpose of the unicofem bone at the back of the knee, is made of two distinct bones; the human unicofem bone appears in front of the wrist as well as behind and is one single bone. This curved bone also differs in the horse in being removed to the upper row or phalæs, for the bone serving the same purpose in the human wrist, is seen in the lower row of the carpal bones.

In this way they may be compared and understood, as, after this explanation, the others fall in very naturally in their proper situations in both. Were it not on account of the names, it would not be necessary at all for the veterinarian to pursue any comparison with the human skeleton, and we think it would be advantageous to avoid it; for the alteration of their figure, on which the human names are founded, renders the same names in the horse totally inapplicable.

A nomenclature for the equiæology, which would include nearly, or quite all the quadrupeds known, might be constructed, and would be attended with great utility; such a nomenclature, however, would require, that neither figure nor situation should supply the names, as these would be perpetually varying.

It is no easy matter to give appropriate and unexceptionable names to all these bones, nor should we be disposed of undertaking it, if the above circumstances, and others that might be added, did not point out the absolute necessity of it; we are aware of the circumflexion necessary in such a measure; and after such consideration as we have time to devote to this subject at present, venture the following as the best adapted which at present occur to us.

The middle bone in the upper phalæux we propose to name as intermedium, being found near the middle of the upper range of bones in all the animals we have examined.

The large internal bone of the same phalanx we propose to denominate as parietum, which, not conveying any particular geometric figure, will apply, without glaring impropriety, to a great variety of shaped bones: the external bone of this range, as gibbium, having some gibbous elevations on its surface.

Of the lower series, the central one we should be led to express by the term as majorium.

The external one, as pollicare, carrying the thumb in all digitated animals, and sitting even in the horse on the internal thyloid bone, which appears evidently the corresponding rudiment of this member in the horse, and is actually elevated above the level of the third bone, and is placed higher than the thyloid bone on the opposite side, serving to confirm the resemblance. It is this bone which so frequently becomes dilated with office deposit, termed splints.

The external bone of this range we would denominate as facifom or falcifom, being provided with various elevated points, rudiments of the hook-like process, and corresponding to the human facifom bone.

The bone serving the office of the facifom bone in the horse, and holding nearly the situation of the pliiform, connecting and supporting the tendons, &c., which pass through it, being altogether a different bone from that of the human serving the same office, which has a curved process on the inside of the wrist, that no confusion might arise with this bone, we change the terms unicofem, or pollicem, in the horse, and call this additional bone, which is found in most quadrupeds, and even in the feline tribe, where digitated extremity is a much nearer approach to the human hand, the or pollicem, or the pol-carpal bone.

This bone gives great force and support to the tendons which pass through it, or are attached to it, allowing depth and solidity to the knee. It is this bone which occasions the prominent point at the back of the knee, affording a strong and handsome outline to this part; it also serves for the attachment of a very strong tendon at its extremity, which being then removed farther from the centre of motion in the joint, is empowered to act with very great force, and resembles, in this respect, the office of the os calcis on the hind extremity.

The or accessorium is a small round bone, about the size of a pea, which articulates with the posterior surface of the os pollicem.

The os pollicem has been termed by Vicet, a celebrated French writer on this subject, os hors de rang, a name perfectly
ANATOMY.

We shall only further observe on the bones of the present point, that the surfaces for motion between the second phalanx and the first are particularly disposed to the outside of the joint, tending by this means to separate the legs when in action from each other, and prevent cutting. This is particularly remarkable in the or fabulaciforme and mammiform. The flexion of the upper phalanx upon the radius is hereby backwards only, and forwards to the perpendicular of the extremity.

Of the metacarpal or Shank bones.—The great difference of proportion in the parts which compose this extremity to the human is not here more conspicuous than in the metacarpal bones. The range of bones which form the wide palm, or the paws, of animals, is here for the principal part conduced into one broad cylindrical bone, longer considerately than the humerus itself, the rudiments considerably abbreviated of the two exterior metacarpal bones remaining to point out the general connection among quadrupeds; the cow has the Shank bone double of splot bones, but at its inferior extremity is divided, forming two condyles for the reception of the two claws, and in this way forms near an approach to the firsted animals, though in a different way.

The Shank bone is flattered posteriory for the reception of the tuniporous ligament and tendons going to the foot, which we may observe is more considerable in the fore extremity than the hind one; the latter is longer, and of a more cylindrical figure, being generally describ'd as having no perceptible difference. The phaloid, or splot bones, adhering to the Shank bone strongly, and are mostly united to it by osseous depositions, otherwise wherever preserving a divided outline between the two bones. In the fore extremity these mostly dwindle to a point, about two-thirds down the length of the Shank bone, and are no longer large in the hind extremity. These splot bones, though so often productive of diseases, tend to strengthen the joint laterally; and perhaps by their elastic yielding to the perpendicular prefrere of the limb, being elevated above the general articulating surface of the Shank, may act as cushions in a slight degree in preventing concussion; they also serve to strengthen the limb, by affording a surface for ligamentary attachments. The inferior extremity articulates with the pattern bone by a condyle, having an elevated ridge of bone in the middle to support it, which enters a corresponding depression in the pattern bone. This joint, though strongly fortified with ligament and tendon, is more subject to suffer from violent ulage than any in the body. In the cloven footed animals the division begins in this part.

Osseous tendons. Sefamoid bones, fig. 1. p. q. r. s. v. are placed at the back of the pattern joint, and resemble, in their figure and properties, the same bones in the human foot; diminishing friction, powerfully softening the tendons going to the foot, and at the same time supporting the pattern joint by their prefrere.

Of the or safrinaeum, or pattern bone. This bone corresponds to the first phalanx of bones of the fingers, the five bones of which may be considered as consolidated into one single bone; its general figure resembles sufficiently a bone of this part.

The pattern bone, at either end, is indented for the reception of the prominent condyles of both the Shank and corone bone, fig. 2. q. p. t. u. t.

The or corone, or corone bone, fig. 1. r. r. s. t. w. w. is, like the former, a similiar condensation of the five bones of the second phalanx of the fingers, and is proportionably shorter than it; it articulates by a divided condyle with the collum bone.

This and the preceding are rough on their sides, with depressions for the strong insertion of ligament, especially laterally, in the point of the axis of the condyle, where a deep indentation is observable.

Of the or bufis, or collum bone. fig. 1. i. j. x. x. —This name, and that of the two former bones, have been taken from those Latin writers who have treated on this subject, and, we conceive, will not require any alteration.

A dilatation resembles may be traced between the enlarged rounded point of the extremity of the bone of the fingers and this bone. The particular structure, however, of this bone and the flot bone, and their various appendages and integuments, is sufficiently important to form a separate description. See Foot of the Horse.

Of the hind extremity.—The femur, or thigh bone, of the horse, compared with the human and, indeed, with most other quadrupeds, is unusually short, so as fearly to appear beyond the parietes of the abdomen externally on a curvory view, and is therefore overlooked by those unacquainted with this subject, and the bone below is usually mistaken by them for the thigh of the horse.

This bone is of vast strength, posseing several elevated and depressed points for the strong insertion of tendons and muscles, which serve to distinguish it from the thigh bone of every other animal. See Plate I. fig. 1. b. i. k. l. m. n.

The head of the thigh bone in the human is carried by an oblique process, or neck, to a distance from the bone, whereas, in the horse, the head is without any length of process of this kind, placed at right angles, nearly to the bone, not affording that variety of motion which the human structure of this part does; a motion directly backwards and forwards, being for the most part the only movement requisite in this animal.

In a state of rest the thigh bone is not nearly in the perpendicular line of the body as in the human thigh, but inclines forward, making an angle with the body of about 45 degrees, and forms posteriorly an obtuse angle with the rect of the extremity. This circumstance is necessary to be observed with attention previously to understanding the design of the muscles of this extremity, concerning the nes of which we propose to advance some ideas, which, as far as we know, have not before been entertained respecting them.

The muscles which are attached to the posterior part of this bone are called its extensors, serving to draw it from the oblique line it describes forwards, backwards to the perpendicular of the body, being attached near its head, and rather laterally.

These muscles also which render this angle more acute, by drawing it forwards under the belly, are called its flexors, and are attached to its anterior superior part. We mention these rules respecting the functions of the muscles of this part the more particularly, as the terms flexion and extention but ill express the operation of these two classes of muscles on this bone, for the inversion of the terms would apply almost equally well; adduction and abduction are also generally attributed to other muscles, as they are found to attach to the inside or outside of the limb. We propose to demonstrate that such are rarely or never necessary among quadrupeds; and that such a val bone of muscles as there are to be found in both extremities of this description, have a much more important purpose to perform.

The great trocanter of the horse, see fig. 1. Plate I. rises considerably above its articulation with the acetabulum. This removal of the surface of attachment of the gluteus muscle farther from the head of the bone, must befow uncommon power.
power on this muscle in the horse, in extending the thigh backward.

The lesser trocanter in the human thigh is placed almost behind it, in the horse laterally internally.

The most notable circumstance in the thigh bone of the horse is a flaring, curved process of bone on the outside opposite the lesser trocanter, see fig. 1 t. k, which receives in its curvature the vastus externus muscle, m. vastus lateralis, and m. vastus medialis, fusing itself with the external ligaments of the thigh muscle. Mr. Stubb’s terms it the protuberating part of the linea aspera; and Vitet’s apophysis recta, tom. i. p. 121.

On the posterior and inferior part of this bone, near its external condyle, there is a deep cavity, in which the perrotatus muscle takes its rise.

The condyles of this bone are remarkable for their magnitude and strength; the outer condyle is larger, and is placed posteriory to the inner condyle.

In the dog, and also in the cat, we have observed a small, round, movable bone attached to the external condyle by a ligament not observable in the horse.

*O f the patella.—* The knee-pan, or little bone, is particularly large, elevated, and thick in the horse, having the lubricous cartilage on its inside where it meets the femur possessing correspondent, impressed condyles for this purpose. This species of cartilage is common to all surfaces of bones which are contiguous; therefore the continual repetition of this circumstance, in describing the articulations of the bones of the skeleton, has been omitted.

This bone serves to increase the surface for tendinous insertion of the muscles of the thigh, &c. passing over an angle on which it can easily glide; it elevates the tendons high above the point they are destined to act upon, and in this way vastly increases their force on the principle of the pulley and block; and we may here observe a property of this bone not generally observed, that it serves to unite in one focus the action of the muscles lying on the opposite sides of the bone, as the vastus externus, internus, and anterior, bringing them to act for one purpose on a single point, in which is clearly seen an instance of a principle we are about to deduce respecting the adductor and abductor muscles.

*Of the tibia, or leg-bone of the horse.—* This bone corresponds in structure with the human much more than the femur; it is, however, shorter, cat. par. There is near its head a sharp apophysis, which might be called its anterior cripita; its external side is concave, in which lie the bodies of several muscles; its internal side convex, posteriorly it is flattened; its epiphysis may be divided into two condyles, external and internal, in the young foal; from the latter springs a small, finous process of bone, the rudiment of the human fibula, which is totally wanting in the ox; the hog, cat, and dog possess a perfect fibula.

*Of the tarvis, hough, or back of the horse.—* This important joint in the horse is made up of six bones, sometimes seven; the internal cuneiform being sometimes divided in two parts, as in the preparation at present before us. This joint in the ox, deer, and sheep appears to have no more than four bones, which seems to point out an extraordinary provision in the horse to increase the perfection of the joint, and prevent the ill consequences of violent concussion, as the additional bones in the joint of this animal are evidently well calculated for such a purpose.

The human tarvis makes a right angle with the tibia, and, in the act of standing or walking, meets the ground; in the horse it makes a very open angle with the tibia, and is very far elevated above the ground; and here we may remark, that all the bones from the hock downwards are used for walking on by different tribes of animals; where the metatarsal bones are elongated, it is raised above the ground. The kangaroo, however, appears to be a remarkable exception to this general rule.

The astragalus bone in the horse possesses two very strong, prominent condyles, which are not observable in the human astragalus.

The *os cuboideum* is found holding the same figure and situation in both animals reposing by its inferior surface upon the external flayloid and shank bone, its upper surface receiving the inferior extremity of the os calcis by an articulation not poising motion.

The two central cuneiform bones of the human calcis appear to be united in the horse to form one flat extended bone, which rests upon, and covers the greatest part of the articulating surface of the head of the shank bone.

The *os naviculare* also of the human tarvis is here converted into a flat extended bone, resting on the former; these two bones together equal in height the *os cuboideum*. By these two flat plates of bone, with their interposing cartilages, a species of cushion is formed, which renders the effect of the violent efforts and concussions this part is exposed to; that they have a purpose of this kind may be inferred from their taking no part in the flexion of the joint.

The internal cuneiform bone, or a bone that holds its situation in this animal, is found resting on the head of the internal styloid bone, which appears to correspond with the bone of the great toe in the human anatomy.

We are again subject to the same difficulty in giving appropriate names to the bones of this joint as we were respecting those of the knee. The bone, called in the human anatomy the *articula*, in no respect in the horse resembles a boat, nor the one beneath it a wedge, therefore to continue these names would be absurd; their situation also as little corresponds as does the purpose they serve in the two animals.

The cuboid bone, the *os cuneiform* and internal cuneiform bone may, without any impropriety, continue to receive those names in the horse, and particularly as it will be attended with convenience to hold as many names as can be admitted corresponding to the human anatomy, by which, at all times, a more ready communication can be held between the two sciences, but not so as to prefer this comparison too far by a servile copy of it, and a comparison between things which have little or no resemblance, or relation, by which the greatest confusion may be created, and the science at its commencement be clogged with improprieties.

The only changes it will be necessary to make in this joint from the human anatomy respects the two flat bones, which may be termed, with propriety, the *os planiforme superius and inferius*. These are the bones which often become diseased with the deposition of offirce matter, forming an enlargement which is termed *tarsus planus*, and also the *internal cuneiform* bone.

The metatarsal, or shank bones of the hind extremity do not differ in any respects, so as to deserve a separate description, from those of the fore extremity; the differences there adduced, we may perhaps add, that the styloid bones in general descend lower in the hind extremity, and are often elevated at the extremity instead of being pointed.

*Of the muscles of the horse, &c.* The following is a brief account and explanation of a large portion of the most interesting muscles of the horse; the short space of time al-
ANATOMY.

rowned for the preparation of this article, and the prejudice of other affairs have prevented us from considering more accurately this subject; the muscles of the extremities, as being the most interesting and important, are more particularly selected; they are accompanied with descriptions taken from actual dissection, during our studies, in the year 1793. The remainder is an explanation of two of the principal muscular figures, given by Mr. Stubbs.

This account is necessarily imperfect; it may nevertheless afford those who are curious only of an elementary knowledge of the subject sufficient information; those who wish to descend deeper into this study will do well to consult the following writers: Bougerel, Elements de l'Art Veterinaire; Laplace, Cours d'Hippatrique, and especially the useful work above mentioned of Mr. Stubbs: a good monograph on the muscles of the horse, giving a proper description of their figure, attachment, insertion, and use, till remains a desideratum in veterinary science, to which it should be subjoined the synonyma of the different writers on this subject.

Our description of the muscles of the hind extremity is with deference presented to the public, as a specimen of the manner we conceive such a work should be executed.

Of the panniculac cornutus. The fleshly panniculus is the most exterior and general of all the muscles of the body; it is found in molt or all quadrupeds, and often serves them in lieu of hands, lying immediately underneath the skin, to which it is attached, and over the cellular membrane covering the muscles; it is of a pale red colour, and envelops a large part of the body; as it passes towards the extremities it forms a thin expanded tendon or aponeurosis, which descends to the superior part of the extremities, enveloping the muscles, and lodging itself in the cellular membrane of those parts, and by attachment to the tendons and elevated points of bone.

When this muscle contracts it corrugates the skin, and affords perhaps by other muscles, it can shake the whole frame with considerable violence, thereby dislodging from the coat duff, dirt, flies, and other offending matters.

The butchers are careful in exposing this muscle on their meat, which serves to give it a more agreeable appearance; it is seen of a pale red colour, and here and there they cut through it a longitudinal nick or slit to expose the white cellular membrane and fat with which it is beneath.

The muscles of the fore extremity of the horse are about 34. They are disposed about the limbs when detached from the body so as to form a pyramidal figure, whose base is attached to the body, and whose apex is resting on the ground; on the bafe of this pyramidal, if we may be allowed the expression, or upper end of the extremity, the muscles are found to possess a four-fold position, viz. an exterior, interior, anterior, and posterior position; such is especially their arrangement about the scapula and humerus; as we descend they become more simple, and occupy at length only a two-fold position, serving for more flexion and extension, as is observable about the radius; at the apex of the cone no muscles are observable but merely the tendons of the last series of muscles, with the bones and ligaments to which they are attached.

Abduction and adduction have been the use imputed to such muscles as are attached to the inside or outside of the scapula, extension and flexion to such as are attached behind or before it; it will, however, we believe, be obvious on reflexion that the scapula can have no occasion for such movements as adduction or abduction, and so also respecting some of the humerus; therefore we are disposed to conclude that these muscles in whatever direction situated have their principal effect in producing a combined operation, promoting the grand object in view, the support and propagation of the animal; and we shall endeavour to shew hereafter, that an abductor and adductor contracting at the same instant of time with equal force, will not produce an effect in either of those directions, but will co-operate according to the position of the bone in an extensor or flexor motion.

The muscles of the scapula are six: trapezius, rhomboideus, levatorius, pectoralis anticus, triangularis, serratus mayor.

1. The trapezius, is a thin extended muscle of a triangular figure, whose point or termination is fixed on the spina scapulae, rather above its middle, its base extending from the cervical ligament along the ligament of the 1st, 2nd, 3d, 4th, 5th, 6th, 7th, spinae apophyses of the dorsal vertebras or withers. It forms an aponeurosis which envelops great part of the abdominal muscles, terminating at length on the linea alba; it also sends off a fleshly portion to the muscles of the neck. Le Trapeze, Vitef. tom. i. p. 155. Stubbs, Anat. Horfe, tab. i. p. q. g. r. f. l. u. x. x. x.

2. The rhomboideus is a short almost square, fleshly muscle beneath the former, takes its attachment to the cervical ligament and ligament connecting the spinae apophyses of the dorsal vertebras, and pusses underneath the cartilage at the base of the scapula, which it almost wholly occupies by its fleshly adherence.

This muscle possesses no tendon, and serves, independent of its effects on the motion of this part, strongly to attach the scapula to the body.


3. Levatorius, or extensor scapula. This muscle is of considerable length, and of a conical figure, its base being fixed to the superior and anterior angle of the scapula, its fibres mixing with those of the rhomboideus, from which in some subjects it can hardly be separated; it pusses tapering along the neck, adhering to the cervical ligament till it terminates in a point or tendon on the same ligament about the second vertebrae.

4. Triangularis. The triangular is a fleshly muscle arising from the occiput; where it embraces the neck it grows narrower as it approaches the scapula, where it terminates by a flat tendon, uniting itself to the rhomboideus, and to the tendinous insertion of the serratus major; its fibres are straight, and the muscle is divided into distinct fascicules by interposed cellular membrane.

5. Serratus major. This very large muscle forms collectively the figure of a fan inverted, the point thereof being towards its insertion beneath the scapula, its circumference on the ribs. It takes attachment by numerous digitations of muscle from the first to the 9th or 10th rib, the posterior digitations of this muscle interweave themselves with the digitations of the oblique muscles of the abdomen, and the anterior portions of or with the intercostal muscles. The triangularis above described may also be considered as a part of this very extensive muscle; the fibres converging from this vast circumference at length terminate by a transverse fleshly adherence to the superior interior part of the scapula between the rhomboideus and subscapularis muscles. There is a falcin arising from the upper surface of this muscle which runs to the linea alba over all the muscles of the abdomen.

These digitations of the serratus major may act in succession, as so many separate muscles, or in masses, the motion being transferred from one to the other, by which it can cooperate with any other series of muscles or alone, by producing a species of rotation of this bone about its axis.
ANATOMY.

It is also in quadrupeds a powerful suspender of the body, raising it on its contraction upon the extremities. Plate II. c, d, e, f. Vitet, Le grand Domet. Stubbs, Anat. H. Plate II. c, d, e, f.

6. Pectoralis major. This is a strong muscle of considerable length, of the figure of a very elongated cone; its base being attached by strong fibres to the sternum and first rib, anteriorly to the large pectoral, from whence it grows narrower till it terminates on the anterior crista, or edge of the scapula, it also contracts a strong adherence to the pectoralis minor, and its aponervosis covers all the muscles of the scapula. Plate II. c, d, e, f. Le pectoral antérieur. Stubbs Anat. Horfe. Plate II. c, d, e, f. Pectoralis major anticus, p. 12.

Note. The human subclavius muscle is only wanting, all the other muscles belonging to this part in the human anatomy are found in the horse.

The muscles of the humerus of the horse are 12: Elevator, antispina tus, communis, pectoralis major, depreflor, dorsalis major, latissimus dorsi, subcapularis, pectoralis brevis, additator, poliza spina tus additator, additator brevis.

1. Elevator proprius lies immediately before the antispina tus, uniting itself with its attachment. Its attachment is along the anterior crista of the scapula; passing with the antispina tus it terminates on the lateral internal part of the humerus. This muscle is so closely connected with the antispina tus, that one and the other contraction is common to them both. It terminates on the anterior processes of the head of the humerus by a tendon which surrounds it.

2. Antispina tus. This muscle fills the whole space of the scapula anterior to the spinous ridge, adhering to its whole surface by strong fibres; it terminates by strong tendon on the head of the scapula, covering entirely the protuberance representing the coracoid process.


3. Communis. This muscle is of considerable length and nearly uniform size throughout, and is common to the humerus and neck; the panniculus carneus forms strong fibrous adhesions to this muscle; its first attachment is by a small tendon to the side of the atlas; it there forms attachments to the muscles of the neck by strong fibres going to them, and lower down the neck it sends off similar portions, mixed with tendon, to be inserted in the oblique processes of the 4th, 5th, and 6th cervical vertebrae, passing over the articulation of the humerus with the scapula, it terminates on the anterior part of the humerus, about its middle, by a short tendon; it sends off a large aponervosis, which unites several muscles together, and forming at the joints the annular ligaments. It also contracts a very strong adhesion to the lesser pectoral muscle. Vitet. Med. Vet. i. p. 158. L'Humerus cervical.

The above three muscles come under the denomination of extensors.

4. Pectoralis major. On removing the skin and fibrous panniculus this muscle is seen taking its attachment along the sternum and ribs, from the middle of it, between the forelegs, to its posterior extremity, growing smaller as it approaches the humerus, terminating on the internal surface of the superior condyle of the humerus.


5. Latissimus dorsi. This vast muscle is situated above the serratus major, and under the panniculus carneus; its aponervosis is covered by that of the trapezius. It takes rise by a very strong aponervosis on the spinous processes of the last dorsal vertebrae, extending to the loins; on the back it becomes fleshy about its middle, covering part of the false ribs, and part of the surface of the serratus major; passing between this last muscle, and the scapula, it terminates by a thin tendon on the lateral internal part of the humerus: it has likewise a strong attachment by tendon to the middle of the deep pectoral muscle, passing with the tendon of that muscle to the small prominence on the inner side of the middle of the humerus, going between the extensors of the ulna. Plate II. r. t. s. t. v. 160. Vitet, Le grand Dorsal. i. p. 160.

6. Depreßlor, or teres major. This muscle is of some length, oval, and somewhat flattened, lying on the under side of the scapula, and closely embracing the subcapularis, having its attachment to the superior and posterior edge of the scapula; passing over the articulation, it terminates by a flat tendon with the preceding muscle, observing the same direction in its course as the long abductor does on the opposite side of this bone. Le grand rond. Vitet. i. 159.

The above three muscles are depressors or flexors of the humerus.

7. Abductor proprius seu coraco-humeralis. This is a small muscle, cylindrical, and tapering at each extremity, forming a tendon; the uppermost takes its attachment to the lateral internal part of the coracoid process of the scapula, the lower tendon to the inferior and anterior part of the humerus, passing over the articulation, and in contact with the inside of that bone. This muscle acting singly draws the lower part of the humerus to the body, as the subcapularis does the upper part of this bone. Vitet. Med. Vet. Le Coraco Humeral. i. p. 161.

8. Pectoralis brevis. This muscle will admit of being variously divided, and is strongly attached to the panniculus carneus. This muscle forms the breast like prominence between the fore-legs of the horse; it is of a figure nearly square, divible into distinct parallel fascicules, from the point of the sternum, where it joins the muscles on the opposite side, it passes, forming a flattish tendon to the humerus. We have seen this muscle deficient on the one side, and full on the other.

9. Subcapularis. It occupies the under side of the scapula, with which it accords in figure, and needs not any particular description, growing narrower with this bone it descends, forming a broad tendon in the large inner process of the head of the humerus, and will admit of being separated into several smaller muscles. Vitet. Med. Vet. Le sous scapulaire. i. 160.

There are also two other small muscles, which may be considered as adductors, or perhaps rather infl exors; the first of these is not so small as the other, and takes its rife at the interior projection of the scapula, or rather superior part of the glenoid cavity by a flattish tendon passing over the joint on the inner side, and taking an oblique direction over the humerus; it terminates in the cavity formed by the condyles of the humerus. We give it the name of M. articularis major. The other, which is much smaller (M. articularis minor) arises from the tendon of the preceding muscle, or the superior and inferior side of the glenoid cavity, and terminates on the head of the humerus by a fleshy attachment. This muscle is not found, we believe, in every subject. These small muscles, it is clear, cannot produce any motion of the limb; their bulk is too small, and they are situated too near the centre of motion to operate with any force in this way. Some have imagined these small muscles about the articulation were designed to move the capular ligament out of the way of being pinched, an idea we cannot subscribe to: those ligaments surrounding the cavity of the joint not being lax.
ANATOMY.

ix enough to be in any danger of this sort, and with their inner surfaces to well lubricated to be caught hold of by an oblique round head of bone. The above three muscles may be confined with the two small ones when acting chiefly as adductors.

13. *Abductor pollicis longus* occupies the oscillopart of the scapula, behind the hamulus ridge; it grows narrower with the bone till it reaches the joint, where it forms a haunchy carilage, which is kept in its situation by two round prominences in the head of the humerus, acting like the sides of a pulley-block: it then terminates on the external就想 of the head of the humerus. *Plate II*. fig. 1, 2, 3, 4, 5.

11. *Abductor brevis* takes its site at the inferior and posterior edge of the scapula, or rather from the fibres of the *polybrachii muscle*, lying between it and the *longus abductor*. This and the former pass over the exteriors of the cubitus, and terminate between the above muscles on the large crooked processes of the humerus. It only differs from the former in being considerably shorter. It sends a tendon to the februous edge of the cotyloid cavity. *Vitell Med. Vet.* t. p. 162. *Le petit rond*. The effect of the principle we wish to establish respecting the co-operation of muscles on opposite sides of the bone, is no where more obvious than in the two foregoing muscles, with their accoutrements, the adductors on the inside. This mode of operation of these muscles appears to have escaped entirely the writers hitherto on this subject. Vitel has remarked respecting them, "ils font executer a l'humus des mouvements, de flexion, et de demitrotation en dehors."

The muscles of the radius and ulna are fewer; two to bend, five to extend them.

1. *Extensor longus* seu posteriores. This muscle is the most exterior of those which fill up that triangular space formed by the humerus and scapula. It takes attachment at the superior and posterior edge of the scapula, and passing down closely, adhering to the large extensor, it terminates on the extreme point of the olecranon. This muscle is the most perfectly situated of any of this extremity. *Plate II*. P. Stubbs* Vitel. Med. Vet.* p. 167, Le long ancœur.

2. *Extensor magnus*. This is nearly the largest muscle of the extremity, of a triangular figure, and occupies great part of the angle between the humerus and scapula posteriorly; it rises by tendinous fibres from two-thirds of the posterior and lower edge of the scapula, growing narrower, it terminates on the inner side of the olecranon by strong and short ligamentous fibres. *Plate III*. fig. 1. N. Vitel. Med. Vet. Le Moyen ancœur, p. 164. Stubbs, *Plate II*. N.

3. *Extensor accessorius*. This muscle is of a figure nearly square; passing obliquely across the other muscles, it rises from the interior part of the crooked spinous proces of the humerus, and terminates on the point of the ulna, uniting often with the preceding. *Plate II*. O. Vitel, Med. Vet. Le Cour ancœur.

4. *Extensor pygmeus*, is situated beneath the others, of a cylindrical figure, tapering to either extremity, rising from the middle part of the humerus, and terminating by tendon on the inner side of the olecranon. Le petit ancœur. *Vitet, Med. Vet.* p. 165.

5. *Extensor minimus*. This is a small muscle of a pyramidal shape, whose base is fixed by fleky fibres to the *olcranon* on its anterior edge, growing narrower, it terminates by fleky fibres on the back part and inside of the humerus, rather below its middle; this muscle fills up the cavity formed by the two condyles of the humerus posteriorly. Stubbs, *Anat. Horfe*, tab. 5. *Vitet, Med. Vet.* L'Oli-canien, p. 167.

These muscles strengthen the limb after it has been carried forward by the flexors, raising the body upon the extremity as a fixed point.

6. *Carpus radius*. This beautiful muscle is externally covered with a ligamentous coating, which gives it a firly appearance, especially on its inside, a strong tendinous fascia enveloping it: it occupies the front of the humerus, extending from the coracoid eminence of the scapula to the anterior part of the head of the radius, to which it is fixed by strong, short, ligamentous fibres. Near its lower extremity it lends off a strong tendon, which, passing along the radius, inserts itself into the tendon of the anterior muscle of the hand. This muscle, in passing the joint, is lodged between the two circular, smooth prominences on the anterior part of the head of the humerus, and is provided with a lubricious cartilage beneath. This muscle is the biceps of the human anatomy, which name will not apply in the horse, having but a single origin. Its body is very deeply cleft. Stubbs, *Anat. Horfe*, *Plate VII*. i, L, d, n. *Vitet, Med. Vet.* Le Curo-Cubital, p. 165.

7. *Flexor convolutus*. This muscle lies in contact with the bone, filling the large cavity or neck of the humerus; formed by the curved process on its exterior part it rises under the posterior part of the head of the humerus, making a spiral turn, it lapses over the bone, filling the cavity above-mentioned, and terminates anteriorly in the hollow of the head of the radius. Stubbs, *Anat. Horfe*, tab. 9, t. r. *Branchials internus*. *Vitet, Med. Vet.* p. 165. La brachial.

The two last muscles are termed flexors; they carry the lower part of the extremity forwards, and the extensors serve the purpose apparently of removing the body to it as a fixed point on the ground.

The muscles of the knee and shank are fixed, two to extend, four to bend them.

1. *Extensor carpi*. It is the body of this muscle which forms the handsome roundity observable on the lateral and rather external part of the radius. It is attached superiorly to the anterior condyle, uniting to the extensor of the foot; it descends, suddenly, forming a flat, broad tendon, lying close to the bone, passing under the lateral extensor tendon, and over the bones of the knee, it terminates on the superior part of the Shank bone, on the anterior tubercofity, by strong ligamentous fibres. Stubbs, *Plate III*. a, b. *Plate II*. d, e. *Extensor carpi radialis*. *Vitet, Med. Vet.* Le Cubital externe anterior, p. 168.

2. *Extensor laterealis*. This muscle takes its attachment for a considerable length along the sharp edge on the external side of the radius; forming a flat tendon, it takes a direction across the leg, and passing over the tendon of the principal extensor, purfuing an oblique direction over the bones of the knee, it terminates on the inside this joint on the os pollicare. *Plate II*. g. Stubbs, *Plate II*. e. L*exten- teur de Genou, L'afolle.

3. *Flexor carpi pollicer*. This muscle has an attachment by strong tendons to the posterior and lateral external part of the humerus; increasing in size, and becoming very flat, it descends, keeping an uniform size, down the radius, forming a large flat tendon, dividing into two parts; one is strongly
ANATOMY.

A strongly inflected in the crooked bone, *pus proficeum* is the other pallest to the shank, and is inflected on its head. Stubbs, *Plate II. m, w, a, o, p, q, r, s*. Vitell. i. p. 169. Le Cubital externe polletane.

4. Flexor offis pollicis. This muscle takes its attachment on the opposite side of the humerus to the former, fending off a considerable branch to the inside of the olecranon, it terminates by a strong tendon on the external condyle of the post-carpal bone. Stubbs, *Plate XII. l*. Vitell. Le Cubital interne polletane.

5. Flexor internus. This muscle is smaller than the two former, and is placed more internally; it takes attachment at the lateral internal condyle of the humerus, and, passing along the radius, forming a thin tendon, which passes through the capsule ligament; it at length terminates on the posterior part of the cannon or shank bone, and infrapinor ligament of the perforans muscle. Vitell. Med. Vet. Le Cubital interne.

6. Flexor pollicis. This small muscle is the most posterior of those about the head of the radius, extending from the point of the ulna on its inside to the annular ligaments of the knee, uniting to the cartilage which surrounds the flexor of the foot, its aponeurosis covers the whole surface of the extensors of the cubitus. Le cubital grêle, Vitell. i. p. 175.

Besides the above muscles, there are two others belonging to the shank bone which are very minute; they are termed by Lafosse les canoines, and by Vitell lombicaux, p. 175. These very small muscles, which are not always described, are found between the suprapinor ligament and the distal bones, one on each side; they rise under the knee, are flexed about two or three inches, then form a tendon, which terminates on the cellular membrane of the fetlock joint. They appear of little use, and may rather be considered as the eflète rudiments of the interosseus muscles, or lumbricielles of digastit quadruples.

The muscles of the pattern, coronet, and foot are five; two to extend, and three to bend them. These three bones always forming one line and making an angle to the side of the limb, we consider as one bone in describing the muscles and their effect, as any division would tend to confuse rather than elucidate the general purpose of the muscles going to these parts. Lafosse has, we think, erred in being too minute in this respect by subdividing parts needfully connected.

1. Extensor fuffraginis is a small, thin muscle, rising by flexy fibres from the external condyle of the humerus; it passes flexy about half way down the radius; adhering to its external sharp edge, it passes in a groove through the annular ligaments and capsular ligaments of the knee, and continues its course along the outside of the shank to the fetlock, where it becomes wider, and terminates by a broad tendon on the anterior part of the pattern bone. It lends off a branch of tendon which passes round the knee to the flexor tendons under the pectoral bone. Vitell. i. 1752. L'extenieur antérieur du Pataron.

2. Extensor flulis. This is the largest of that assemblage of muscles which surrounds the head of the radius. It arises from the external condyle of the humerus uniting its flexy fibres with those of the exteror of the humerus or shank, it becomes tendinous above the knee, being lodged and confined by ligaments in a groove; it perforates the capsular ligaments of the joint, and, passing down the front of the shank at the fetlock joint, it forms an union with the extensor of the pattern, and growing broader, and enveloping almost the whole front of the coronet, it finally terminates on the anterior eminence of the coffin bone. Stubbs, Anat. Horfe, tab. viii. i. 2. 2. 5. 5. 6. 6. Extenfor Digitorum Communis. Vitell Med. Vet. i. p. 175.

The two former muscles serve to bring the three bones of the foot forward, and we may remark, when compared with the flexor, disproportionsamall, for the weight of the horse operates as a powerful extensor of this part, and renders great muscular power unnecessary.

3. Perforans. This muscle takes its attachment by flexy and tendinous fibres to the internal condyle of the humerus; uniting with the perforans near the knee, it forms a strong tendon, which, at the back of the knee, (within the concavity of the pectoral bone,) is received within a strong ligamentous groove, passing down the shank behind the tendon of the perforans; at the patella it forms a remarkable ligamentary annulus for the reception and passage of the perforans tendon, expanding into a broad flat tendon at the back of the patella, and, covering the perforans, it divides, forming two tendons which pass obliquely over the joint, and terminate on the upper part of the coronet. Stubbs, Anat. Horfe, tab. 15. m, n, s. Sublimis, p. 42. Vitell. Med. Vet. i. p. 173. Le Perforé.

4. Perforans, is a considerable muscle rising with the former, and lying more internally; it will admit of division into three parts, which Monf. Lafosse has described, with his usual bounty, as three distinct muscles. This muscle is flexy till it reaches the knee, when it forms a flat tendon united by the flexor pollicis cubitis, and radius tendons inserted into a flat, smooth cartilage under the *os pollicis*, forming here a large cylindrical tendon, when about half way down the shank it is joined by a ligament from the posterior part of that bone arriving at the fetlock, it passes through the annulus of the perforans, and continuing between its divided tendon, terminates by a broad, flat tendon on the inferior surface of the coffin bone being covered by the frog. Stubbs, Anat. Horfe, Profundus. Vitell. Med. i. p. 174. Le Perforant.

5. Adjutorius. This is a flat muscle lying close to the radius, and filling the hollow on the posterior part of that bone, it soon becomes tendinous, uniting with the tendon of the perforans.

Of the Ligaments of the Fore Extremity. 1. Ligamentum fupensiformis, supenformy ligament, takes its rise a little below the head of the shank by muscular and ligamentous fibres, lying between the heads of the styloid bones, it paves down the posterior surface of this bone, quitting its adherence to it about the middle, and, becoming detached, it divides at the fetlock into two branches, which closely and strongly embrace the islaemoid bones; it forms one ligament again at the back of the patella, filling its hollow cavity, and finally terminates on the head of the coronet bone. At the fetlock it also sends off two branches in an oblique direction downwards, which unite with the extensor tendon of the coffin bone, and preserves it firmly in its situation. Stubbs, Anat. Horfe. Interossœum. Lafosse has made a muscle of it. Plocchier du Pataron.

This ligament is the main support of the fetlock joint, and this joint, though so strongly fortified, is, for obvious reasons, with less risk subject to be injured of any part of the body.

There are many other ligaments belonging to this extremity, which the proposed limits of this article will not allow us to give a description of, as the lateral ligaments, the capsular ligaments, the burial ligaments, the returning ligaments, crucial ligaments, &c.

The muscles of the abdomen, allowing for the magnitude and depending position of this part in the horse, are much resembling those of the human. Obliquus externus, see Pl. II.—I. I. I. K. K. L. m, n.
Muscules of the neck and head observable in the infantile plates.

Sterno-mastoides, Pl. II. a, b, c.
Coraco-bridgeus, Pl. II. f, f.
Sterno-bridgeus, Pl. II. g.
Transversus, &c Pl. III. p, q, r, s, t, u.
Longissimus dorsi, Pl. III. g, b, b, i, k, k, k.
Sacro-lumbaris, Pl. III. h, a, m, a, a.

Muscules of the back, &c. observable in the infantile plates.

Sterno-mastoides, Pl. II. a, b, c.
Coraco-bridgeus, Pl. II. f, f.
Sterno-bridgeus, Pl. II. g.
Transversus, &c Pl. III. p, q, r, s, t, u.

The Muscles of the posterior extremity of the Horse and other domesticated Quadrupeds, with the Synonyma of human and veterinary Authors.

2) De variationibus hereditatis paffaru, qua7 laudati dioitariffider; VII Vegetius, T. 35.

The different muscules of the hind extremity of the horse are performed by the means of about thirty two muscules.

15 proper to the thigh, 3 to extend, 4 to bend it, 4 termed adductors, 5 called rotators.

2 common to the thigh and leg, 1 to bend and turn them inwards, 1 to extend and turn them outwards.

8 proper to the leg, 3 extensors, 2 flexors, 3 adductors.

2 proper to the hock and Shank, 1 to the os calcis, called an extensor, and the other to the anterior side of the head of the Shank, called its flexor.

1 to the coronet bending it backwards.

4 to the foot, 1 flexor, 1 extensor, and their lateral muscules, 1 to each.

On dissecting the muscules of a man’s thigh and leg, and those of the thigh and leg of the horse, and comparing them together, the dissimilarity has been found so great, that it would only create confusion and misconception to apply the same names to both; where they agree we gladly embrace the human names, where they are not at all alike, we do not attempt to make them appear so by imposing the same names, but have given names expressive of the situation, attachment, or shape of the muscle. Where the comparison between the human and the horse was doubtful, we have taken some intermediate animal so dilately removed from man in structure, by which we could more easily detect the coincident part, and transfer them to the horse.

The muscules of the thigh are 15, distributed as follows:

Gluteus esternus

G. magnus

G. parvus

P. bursa

Iliacus major

minor

Adductor teres

magnus

parus

Musculus extensor

intemus

Pyramidalis internus

M. parrus articulationis

Genelii.

Gluteus

Straighten the thigh by drawing it backwards, or rather move the body forwards to the thigh already advanced by the flexors.

Flexors, advancing the thigh forwards.

From their situation appear to act as drawing the thigh closer to the body, but probably in conjunction with the common muscules on the opposite side, which terminate about the little, co-operate in the general purpose of removing the body.

Termed rotators; a purpose they cannot serve in this animal, and therefore their use appears by human anatomists to have been wrongly assigned; they appear to co-operate according to their situation with the muscles above described.

From the manner in which these muscules are described, and their uses assigned in the publications on human anatomy, we conceive they convey but a feeble idea to the mind of the student of their real purposes. In the horse their uses are more striking and strongly marked, which suggested the explanations which are here given of their effects, though we are convinced much more remains to be done than has been hitherto done on this extensive and complicated subject.

Previously to entering on these muscules we must advert to the description given of the thigh bone in the osteology, to which we must refer the reader.
Gluteus externus. This muscle lies the most exteriorly of all the muscles of the buttock, and is of a small size: it extends from the second and third spinous process of the sacrum to the anterior angle of the inferior ramus of the ilium, where it joins the fascia lata; from thence it extends to the procerus recruratus externus of the thigh. This muscle is surrounded on all sides by aperoneuriis, that on its superior part, covering over the muscles of the rump, is affixed to the spinous processes of the loins; the aperoneuriis of its posterior part falls underneath the sacroitabalis externus, to which this muscle is contiguous in passing to the external curved process of the thigh.

The gluteus externus is so small in quadrupeds, that a doubt might arise whether this was not a part of the fascia lata, and the muscle beneath it the corresponding one to the gluteus maximus of the human anatomy. From a further investigation of this subject, we believe that not to be the case, and that it is the real representative of the gluteus maximus.

The singular diminution of this muscle in the quadruped may be, perhaps, explained on the following principles of the difference of structure necessary to the two animals. In the man, the legs have to perform a greater variety of motions, as abduction, adduction, rotation, &c. which the horse, whose motions are principally confined to going straight forwards in a line, does not require, so we see this great abductor of the human anatomy becoming a very small one in this animal, while the muscles of the rectilinear progression are vastly increased in bulk, as we may see by looking on the gluteus medius, which is the maximus of the horse in point of size, and from its attachments, is evidently a direct extensor of the thigh. Others might say it was diminished on account of the increase of the purchase obtained by its junction into the extended point of the curved processes of the thigh being taken farther from the centre of motion, which would compensate for its want of power; for it seems pretty nearly the same thing whether we make a muscle very large, or give it a powerful insertion; sometimes bulk, sometimes power only is necessary, but the composition of which power should be obtained by accumulated muscular fibres, or by favourable insertion, would lead us beyond our present purpose.

This point once admitted, viz. that it is the gluteus maximus of the human body, the others follow naturally, and admit of a nearer comparison. The anatomy of the thigh of the dog, which has no curved processes, seems to confirm this opinion.

Its ufe. The direction of this muscle seems to point it out as an abductor; the best way, however, of considering it is to regard it in this animal as a tensor aperoneuri of the buttock, abducting the muscles of this part, by its gentle compression and elastic springing and retraction, in their motions.

In the ox it exists with pretty much the same characters.

In the dog it is much larger than in the horse, and is a small muscle, having a strong attachment to the fascia underneath the muscles of the tail, and terminating in the back of the thigh by a long tendon.

In the cat the same as in the dog: but here it might well be denominated the gluteus poecilus.


2. Gluteus medius. This vast muscle lies immediately under the preceding, occupying great part of the upper surface of the ilium; it takes its rise by a point on the lumbal muscles, growing more flabby as it reaches the ilium; it takes a strong adherence, by flabby fibres, to the external angle of the inferior ramus; after passing the ilium it becomes smaller, and dividing itself into two bodies, one terminates on the superior posterior trochanter, the other by a strong tendon on the inferior external trochanter, which is covered by the tendon of the external gluteus. This muscle may be divided into two distinct parts, one of which might be considered by some as the maximus of the human; however, the nature of its attachments seems fully to prove its agreement with the medius.

Its ufe. To draw back the thigh, or (the leg being made a fixed point on the ground) to advance the body upon it.

In the ox. This muscle is more diffinately divided into two bodies, nor does it pass so far over the muscles of the loins. There is also a small almost linear muscle not found in the horse.

In the dog. It is not at all attached to the muscles of the loin, but fills up the ilium entirely, and terminates on the posterior trochanter, and in the cat the same.


3. Gluteus parvis. This is a short, strong, and (though small, compared with the former) not inconsiderable muscle, lying immediately over the joint; it takes attachment round the posterior ramus of the ilium; passing over the head of the femur it fills the anterior concavity formed by the superior trochanter of the thigh.

Its ufe. It operates in the combined effect of extending the thigh; its position is that of an abductor.

In the ox, nearly the same. Le petit feflier, Vitt. p. 185.

In the dog, it is of a different shape, being more pyramidal, and attached at the anterior superior part of the thigh.


4. Pfaus magnus. On removing the interlines from the abdomen and the pentoneum, this beautiful muscle presents itself; it is attached to the inner side of the two last ribs, and to the transverse apophyses of the lumbar vertebrae, passing to the edge of the pelvis it joins the iliacus, and is with it inserted into the little trochanter, running between the iliaca major and minor: this muscle can never be mistaken for any other in any animal; it is rather depressed at its origin, but becomes cylindrical and pointed going to its termination; this muscle, near its insertion, is confined by a ligament which binds it and the iliacus muscles in their situation.

The pfaus parvis we consider as a flexor of the loins, by bending the pelvis (to which it is always attached) on the lumbar vertebrae.
ANATOMY.

Veterinary writers have mostly described this muscle as belonging to the thigh; it, however, generally terminates where the femur begins, forming together a digastric muscle of great length.

Ox nearly the same. Le grand Pfaos. Vitet. p. 188.

Dog. It is attached to the four last lumbar vertebrae, is vaUy larger, and more fleshy in proportion to the animal; it terminates in the same place: but the iliacus parvus, we may observe, does not in this animal terminate where the femur begins, for this muscle rises from the anterior angle of the ilium.

In the cat there are three very distinct muscles of this description.


5. Iliacus major. This muscle takes attachment to the whole inferior ramus of the ilium growing cylindrical, and tapering it is joined to the pfaos magnus, passing with it through Poupart's ligament to the little trocanter of the thigh.

In the ox it is more intimately blended with the iliacus parvus.

In the dog it is remarkable this muscle is entirely wanting. The ilium is elevated so far above the lumbar vertebrae, that the muscles of the back occupy its place: it is flagellar, that this circumstance should have escaped the notice of Douglas, who has expressly treated of the anatomy of this animal.

In the felis the same as in the dog.


6. Iliacus minor. This muscle, which, in general, is quite separate from the iliacus major, takes its rise from the midle of the first acral apophyses all the length of the posterior ramus of the ilium, passing over the head of the femur it terminates with the pfaos and iliacus on the little trocanter; it permits the pfaos to pass between it and the iliacus major, and might be considered as a portion of the latter; it is connected by areatrofus with the muscles which line the pelvis.

If these last muscles have all the power of bending the femur; the two last on the pelvis, the pfaos on the loins, bending both femur and pelvis.

Ox. Not a distinct muscle.

Dog. Is altogether wanting, but appears to be compehented by having three pfaos muscles.

Cat. The same as in the dog.


7. Adductor teres is a cylindrical muscle, which makes its appearance on the hinder of the thigh; the integuments being removed, it takes its rise on the os pubis, near the lymphatics, attached to the same ligament with the rectus abdominis; it terminates along with the adductor magnus, about half way down the hinder of the thigh, or rather on the back part of this bone.


Comparison of this muscle with the human péctineus. We fee by its attachments that it is by no means the same muscle; it is much more nearly allied to the triceps adductor primus, which it also differs from; it rises too near the lymphatics instead of the brim of the pelvis; and terminates by inflection along with the large adductor low down the thigh; it is also a more external muscle than the péctineus; but as there is no real péctineus, nature seems to have united in this one muscle the properties of the péctineus and adductor longus, so that we have chosen to call it by a different name from either, viz. adductor teres.

The ox has a much fatter muscle, and it bends off a flip to the ligaments of the knee.

Dog. This muscle is rounded, and much resembles the human long head of the triceps.

The cat. There are four adductors, one of which resembles more nearly the human péctineus.

8. Adductor magnus. There are three distinct muscles of this description in the horse; this portion of it is very distinctly by removing the adductor planus of the leg, taking attachment to the lymphatics pubis, and extends down to the posterior and inner part of the thigh, and sending off another portion which is attached to the tibia, or rather to the joint of the femur and tibia by a flat tendon. This muscle may be divided into two portions; one has been called by veterinary writers, la portion moyenne, et la portion anterieure; but this we consider as unnecessary and unnatural; for after such division it does not correspond to the three portions of the triceps muscle in the human.


Comparison with the human. On actually comparing this muscle with those of the human thigh, it is difficult to decide whether it most resembles the short or great head of the triceps, but it certainly is not much like either of them; therefore, to prevent confusion, we have given it a different name, and left out the term triceps altogether; this muscle, and the vastofemoralis internus both agree in some points with the great head of the triceps, and differ in others. Stubbs considers it one, and the French writers the other; in this confusion I think it belt, for distinctly, to avoid the comparison, and give it a name that will not interfere with either.

Dog. This muscle lies underneath the long head of the triceps, and is the largest of the extremity.

Cat. In this animal the artery perforates the tendon of the adductor magnus, as it does in the human body, to pass to the gaitrochecium, which serves to identify the muscle in this animal.

Ox. No such portion appears.

9. Adductor brevis fr quadratus. This muscle lies immediately underneath the former, and is of a linear figure, being throughout of nearly equal size, resting on the os ischii near the edge of the foramen obtur., it takes an oblique direction, and terminates on the posterior flat part of the thigh, on the back of the posterior trocanter.

Ox. It exists of the same figure. Vitet. L'Ischio-crural, p. 185.

The dog possesses it, and also a muscle which exactly corresponds to the short head of the triceps in the human.


10. Tensorius, or M. ischiaticus. This is considered by some a muscle of the leg, others of the thigh; in this animal, however, it is common to both, and might be very well placed with the common muscles before mentioned. This muscle often varies in figure, but is generally of a triangular shape,
shape, formed of two or three flabby bodies, the superior point of the triangle is affixed to the os ilium on the external angle of its inferior ramus, its posterior point is affixed to the procissus recurrentus femoris with the gluteus externus, with which it forms an intimate union, its inferior part terminates by apsacuous which covers all the muscles of the inside the thigh, and its anterior part, extending also over the patella and tibia.

Os. This muscle not so completely divided into two portions.

Dog. Besides this muscle there is another strong muscle above it, and which has been noticed by Douglas.

Cat. The same as in the dog.

Stubbs, Anat. Horfe, tab. 3. Fadila lata.

Lafoffe, Cours d'Hippothrique, p. 120. Le falsa lata adductore de la jambe.


Bourgelat, Elem. d'Hipp. adducteur de la cuisse.

Ten's vagina femoris, limes et alis.

Douglas, Myolog, comp. 164.

Although the utmost brevity has been observed in the foregoing descriptions and remarks, and nothing introduced which was not of importance in establishing this science on a rational basis, yet have we already passed the limits we had proposed in treating of this article; and if the remaining muscles were considered as the subject at present demands, it would extend beyond the proper bounds for a communication of this fort, we shall, therefore, confine ourselves for the remainder of this extremity, to give only the names as we find them in our MSS. and conclude this article by a description of a few of the most interesting vicera of the horse.

11. Obturator externus.

12. Obturator internus.

13. Pyramidalis.


15. Gencilli.

16. Vagus externus.

17. Vagus internus, Plate III. 7, 8, 9.

18. Vagus anterior, Pl. III. 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 6.

19. Adductor planus tubo, Pl. II. e, g, f, Gracilis, Stubbs.

20. Adductor longus, Pl. II. 8, d. Sartorius, Stubbs.

21. Popliteus, Pl. III. b, h, i.

22. Sacroiliaci externus, Tab. 2, i, l, l, u, u, c, v, a, s, y, y.

23. Biceps Cruris.

24. Sacroiliaci posterior. Bourgelat and Vitet consider this as the biceps cruris, and Stubbs the feminocephaloi, Pl. II. 16, 17, 17, 18, 19.

25. Sacroiliaci internus. We infer the synonymy of this muscle, to shew the confusion that is likely to arise from purifying too cloe a parallel with the human anatomy.

Lafoffe, Cours D'Hippothrique, le gros adducteur de la jambe, p. 119.


Stubbs, Anat. Horfe, adductor magnus femoris. We have here an equal division of opinions, whether it should be confidered as part of the triceps, or the semimembranous. Stubbs has also given a muscle which he calls semimembranosus. The writer of this article is at a loss to understand what is there intended, but is disposed from the figure to believe that the short portion of the sacroiliaca has been divided and taken for that purpose.

These immense muscles evidently co-operate to one effort, and are better denoted and understood by confidering them in this way, and by the above names than by the human names, even supposing their corresponding muscles in the human body could be clearly ascertained, as those names would only serve to convey the confused and erroneous idea of a detached office to each of those muscles, and as though they were in no way connected; it was the confideration of the three muscles last mentioned that firft gave us the idea of the real effect of adductor and adductor muscles, in promoting animal locomotion. That such vast muscles of muscle as these should be carried about by the animal to perform such trivial offices as abduction or adduction it would be highly absurd to imagine; for it may be laid down as an axiom that the bulk of the muscle always bears some proportion to the importance of its office, and purifying this reasoning a step farther, we may conclude that even abstraction and adduction itself are often performed by the co-operation of muscles termed extensor and adductor muscles.

26. Tibialis anticus, Pl. II. tab. 1. Pl. III. 10, 11, 12, 13, 15, 16.

27. Tibialis internus. a muscle not always distinguishable.

28. Gastrocnemius, Pl. II. m, m, m.

29. Linearis, fea tibialis externus.

30. Extensor brevis pedis.

31. Extensor longus pedis, Pl. II. 36, 36.

32. Peroneus, Pl. II. 37, 37.

33. Peroneraus, Pl. III. 25, 24, 25, 26, &c.

34. Peroneraus minor.

Of the lungs of the horse. This viscum in the horse consists of three lobes, two large ones which occupy the sides of the chest, having at their anterior presentation two elongated auriform appendages which closely envelope the heart; the third or central lobe is much smaller, lying between the other two, and presents itself to the sternum. It is not unfrequent in the lungs of horses that small red patches are observable that will not inflate like the other parts of the lungs, and are therefore, not improbably, obliterated cells from colds, inflammation, &c. the settling of the blood will also give an appearance of this kind, but this does not prevent the lungs from inflating.

The trachea of the horse, where it paffes into the chest, and previous to its entering the lungs, has a singular duplication of the cartilaginous rings which is more extensive than the rest of this tube, so as to admit by very slight preflure, the fides of the tube to be brought in contact, and the total obliteration of its cavity: this structure may perhaps adapt the diameter of the trachea to any quantity of air that is passing through it to the lungs.

Of the liver. This viscus in the horse is large, deeply chit into lobes, and poffeffing no gall bladder. The ductus venosi of the human fotal circulation is also wanting in the equine fpecies.

Of the foimach. The foimach of the horse consists of a pouch or bag of the fmal oblongate or unifoim figure without, within, it is lined with membranes, which more refemble the coats of the different foimachs of ruminating animals than the indefinite of the generality of foimachs of this external figure.

There is distinguishable in the infece a white rugose coat, (fe Plate IV.) not vascular, which appears to be a continuation of the fthaline infensible white tiffue, which lines the oesophagus; this spreads over the upper part and broad end of the foimach, till it abruptly terminates about its middle; this part of the foimach corresponds very much to the pauch, or first foimach of ruminating animals.

The second division occupying the lower part or greater arch of the foimach, extending high up the fides, towards D d 2 the
ANATOMY.

the small arch, and reaching nearly to the cardiac orifice is lined with a smooth red membrane, and is highly vascular, resembling more the stomach of carnivorous quadrupeds; the rest of the stomach extending from the termination of the former to the entrance into the duodenum consists of a pale red membrane, extremely loose, and thrown into longitudinal folds or duplications, intermixing with the former by almost imperceptible gradations of colour; this coat is thickly covered with a flimy mucous, not observable on the other coats; this part of the stomach has a strong resemblance to the fourth, or last stomach of ruminating quadrupeds.

The exact purpose of these three constructions of membrane in the same stomach is not easily ascertained; whether they all unite in one common purpose, as though the stomach consisted of one common membrane for its lining, or whether the food is changed by the succedaneous operation of each of these membranes, we know not: we may observe on opening the stomach that the food makes pretty much the same appearance in whatever part of the stomach it may lie, that one should be hardly led to conclude they have in the horse distinct functions, but combining in one common effect, and are in reality the rudiments only of the structure of the stomach, peculiar to the generality of graminivorous quadrupeds, without producing any specific effect here; for it seems difficult to imagine how the different operations should take place in the same track without disturbing each other. Nature seems to obviate a connected sytem, not only in the entire animal, but also in each particular organ, forming an inflated sytem of structure and operations.

It is generally imagined there is some valvular apparatus to this vicus, which prevents the horse from vomiting, and much has been written on this subject: we never could discover any thing of the kind, and are disposed at present to believe, that as the form of the horse would render vomiting inconvenient, the power of receiving the impression which excites this operation is withdrawn from the animal, as it would be idle to suppose a power given to vomit with a structure of parts not admitting of it; it would be as inconsistent as placing the head of the lion on the shoulders of the horse, or giving the disposition of the horse to the lion's form, by which the very purposes of nature would be defeated. It was, however, an opinion entertained with some confidence, at the Veterinary College of Copenhagen, that the root of the white hellebore (veratum album) would occasion a horse to vomit, being placed under the skin.

In an ass's stomach I have seen a valvular apparatus at the cardiac orifice, and the infePlace the between the inside of the stomach, about one inch, forming a loose fold, which served to mark the divisions of the stomach more strongly, but could not in the smallest degree operate as a valve; this is, however, not very frequent. The stomach of the hog also partakes of this sort of structure, though not so distinctly marked as in the horse.

Of the chyle duct of the horse. This duct in the horse is not very difficult to find, both from its magnitude and situation, lying on the aorta, at the loins, very much exposed as it passes forward towards the thorax, it lies lower beneath the surface passing near both under the aorta, it is much smaller in the middle and enlarging to each end; about the 4, 5, 6 ribs, it is as large as a man's thumb, it becomes narrower again as it passes into the axilla, but enlarges again at its termination, where it enters the vena cava, or rather the vens formed by the union of the two jugular veins, and anterior to the subclavian, it there forms a large round head or cuff, and is provided with a valvular apparatus to prevent the return of the chyle or the blood from entering the duct. Toward the loins it has a strong adherence to the coats of the aorta, and lower down is strongly embraced by the tendon of the diaphragm; it then enlarges, and passing upon and by the side of the lumbar veins, discharges itself by several openings into them, which openings are also provided with valves.

The openings of this duct into the lumbar veins which have never before been remarked, seem to point out a double circulation in this vessel, viz. from the middle to each end as the smalls of it in the middle would also seem to indicate; we have, however, in some subjects found a valve opening anteriorly, or towards the jugular veins, within six inches of its posterior termination; this duct, however, is subject to very great variation.

In another subject we found this duct terminate about the second lumbar vertebra, where it divided one branch forming a sharp curvature, circumscribing a portion of the formation of the diaphragm, the other seeming to be lost about the fourth or fifth lumbar vertebra in smaller ramifications. In another subject which we injected, the duct was discovered on the left side, about the situation of the last dorsal vertebra, it crossed the aorta, and passed to the right side, immediately before and relating against the superior mesenteric artery; it then divides into several small canals, which appeared to be passing to their termination in the lumbar veins.

Parts of generation. No animal whatever is more richly provided with the various apparatus belonging to these parts than the horse, for nature here seems to have lavished with profusion whatever can tend to perfect the generative act; there is no part of the human construction of these parts but is found in the horse; the most essential difference appears to us to consist in the male, of the penis being suspended from the integuments of the abdomen, and not immediately from the pubis as in the human; hence the acuteness of the angle where it passes the pubis, is such as to render the passage of the catheter almost impracticable.

We have remarked that the penis of the horse possesses a voluntary power of erection, not known to the human, or perhaps to all other animals; this power is exerted on making water, and though the erection is not very considerable, it is yet sufficient to bring the penis from its sheath, which is effected apparently by its increased gravity from blood accumulating in the cavernous cells of this part. After placing this semi-erection of the penis subdues, and it again is retracted within the sheath; this operation, though occurring daily to the fight of every one, has not, it is apprehended, been noticed by any veterinary writer.

The urethra of the horse is mucular from one extremity to the other, being formed on the outside of strong transverse fibres and supported by a strong ligament.

Naturalists were long at a loss to discover the mamma, or teats of this animal; in the male they were at length detected by Buffon, on the sheath of the penis. Mr. John Hunter also made the same remark without knowing that Buffon had previously noticed it; these teats are larger in the fucus and young foal.

In the glands of the penis, immediately over the opening of the urethra externally, there is a large cell or cavity, smooth on the inside, and lined with a membrane, which secretes a brown mucous substance for the lubrication of the penis, and defending it from the corrosive effects of the urine; another cell of a similar description with the former is observable, on the side of the urethra, and nearly surrounding it, it is separated from the former by a membranous partition.

The apparently inanimate secretion above described is miscible with water; it burns, however, in the fire like an oil
The cavernous body of the penis has no longitudinal septum; its cells are divided by transverse fibres, which are probably muscular; it terminates in a point near the extremity of the gland, where it is surrounded on every side by the venous body, termed in the human corpus spongiosum.

Another irregularity in the genital parts of this animal is, that there is an immense congestion of veins, lying on the back of the penis, which are filled during copulation, forming an elevation nearly as large as the penis itself; these veins communicate with both the cavernous and spongy bodies.

The **uinctus femininis**, and the bladders attached to them, are very large in the horse, having integuments of considerable thickness.

There is a great peculiarity in the structure of the **vas deferens** of the horse, which, in passing over the bladder, enlarges to the size of the human thumb; this amplification extends from its entrance into the urethra to the distance of five or six inches from this point, where it again becomes of its ordinary diameter.

The inside of this enlargement is composed of cells, and somewhat resembles in construction the cells of the **corpus cavernosum penis**, passing in a transverse direction across the tube. In the centre of this enlargement pass the small canal of the **vas deferens**, each cell communicates by one, two, or more small pores with the canal of the vas deferens; these cells diminish as they approach the neck of the bladder till they are lost in a smooth passage entering the urethra.

What the purpose of this structure is does not appear; it must retard the passage of the **fenes**, and probably adds some fluid to it, secreted from the cells themselves.

On a first view of the pudenda of the mare the position of the clitoris appears to be inverted, compared with the position of the same part in the human, being found on the lower part of the vagina; this apparent difference is removed when both are considered in the same position.

That the present article may not be too far extended we refer the consideration of the other vices and parts of the horse to be introduced under their proper heads.

Anatomy is also used for an artificial representation of the structure and parts of the human body in metal, platter, wax, or the like. In this sense we say, the wax-work anatomy. R. Dickenf. flatuery, finifhed an human anatomy in platter of Paris, representing a man standing upright with his skin flayed off.

There is likewise a wax-work anatomy, said to have been invented by Gaetano Giulio Zuma, a Sicilian of Syracuse.

Yet M. des Noyes, who learnt it of him, and probably made some improvements in it, bringing it to Paris, arro-gated the chief honour of it to himself. Some prefer, above all the rest, for public lectures and courses, the use of real parts of dead bodies prepared by injection. Anatomical injections are either of mercury, or mixtures of equal parts of bilimun, lead, and tin. Neumann. The inconveniences that attend the dressing of dead carcases, have occasioned the invention of another cleaner and more durable kind of subjects. Reifelius contrived a human statue, wherein the circulation of the blood was represented to the sight, and some hint of the like kind was shown by M. Choret; and more lately still by Madame Bacheron, who has brought this art to great perfection. See her observations on the artificial anatomy, in the Memoirs of the Acad. des Sciences. an 1739. Hist. 94.

**Anatomy** is sometimes used to denote the subject to be anatomized. Thus (by 39 Hen. VIII. cap. 12.) the company of barbers and surgeons may have and take yearly four persons condemned, adjudged, and put to death for felony, for **anatomy**; and to make incision of the same dead bodies.

And by 25 Geo. II. cap. 37, the bodies of felons convicted of murder, in the county of Middlesex, or city of London, are, after execution, to be delivered to the hall of the surgeons company, to be filcified and anatomized; and in case such conviction and execution shall happen to be in any other country, or place, in Great Britain, then the body of such murderer shall be delivered by the sheriff, &c. to such surgeon as the judge shall direct.

Anatomy is also used, in an improper sense, for the analysis of mix bodies.

In this sense the chemists sometimes call their art **physics**, **anatomy**, **anatomy pyrotechnia**.

In which sense we sometimes say the anatomy of vitriol, the anatomy of sulphur, the anatomy of Rhennia wine, &c.

Anatomy is also used for an exact search or examination of the parts of a discourse, business, or the like: in which sense, we say the anatomy of a book, a doctrine, or the like.

**Anatolia**, in Geography, a small town of Greece, anciently Tanagra.

**Anatropolis**, from **α** νατριως, I wear, in the Ancient Medicine, denotes friction.

The word is sometimes also written simply **tripsis**.

**Anatron**, or **Natron**. See **Natron**.

Anatron is also used for **Glass Gall**.

Anatrope, **ανατροπης**, from **ανατροπης**, to subvert; a subversive literally, or relaxation of the stomach, attended with the loss of appetite, vomiting and nausea.

Anattom, in Geography, an island in the southern Pacific Ocean, and the most southern of those called New Hebrides. S. lat. 20° 4'. E. long. 170° 4'.

Anatzarthon, in Ancient Geography, an archi-pelagical fee of Asia, under the patriarchate of Antioch.

Ana, or **Anava**, a city placed by Herodotus in Phrygia, between the rivers Marfylas and Meander, but nearer their sources than their confidences. To the south-west of this city, and near it was a lake, from which they obtained salt.

**Anaudia**, among **Naturalists**, denotes dumbfounded, or a want of the use of speech.

Anaudia is, by some, made to differ from **aphonia**, as the former is owing to a defect of the nerves of the tongue, the latter to that of the nerves of the larynx.

Infants and mutes are **anaudia**, **αναουδιος**, not **aphoniis**, **αφονιος**.

**Anauodama**, or **Anadoma**, in Ancient Geography, a town of Ethiopia, near Egypt.

Anavinga, in Botany, a genus of plants, with in-complete flowers, comprizing some trees of the East Indies, which are not much known to botanists. The generic characters, according to La Mareck, are, that the flower has a calyx of five oval, concave leaves, opening in a rofe, and permanent; it has no corolla, but at the base of each foliule of the calyx are seen two pedicles shorter than the foliules of the calyx, and somewhat hairy; the stamina are ten, of the length
length of the calyx, and have their filaments inserted alternately, between the pedicels, upon the base of the follicles of the calyx; the authors are small, ovate, and divided into two by a vein or furrow; the ovary is superior, globular, or oval, invested in a whitish style, and terminated by a stigma, with a spherical head. The fruit is an oval or globular berry, marked by five slight channels, and containing ovate and reddish seeds in a pulp. There are two species: 1. A. lanceolata, with alternate leaves, lanceolated, slightly ferrated, subpulpeous beneath, with oval berries longer than the pedicule. 2. A. oxyacantha, with alternate leaves, ovate, acuminate, and ferrulate, and globular berries equal to the pedicule. This is also called baldor and a berries. The anarca is a tree of middle size, that grows in the sandy soil of Malabar, in the East Indies, especially about Cochín. It is evergreen, and its fruits or berries are ripe in August. Its leaves, bark, and fruit have a bitter taste.

The juice of the berries drank excites sweat, cures malignant distempers, and keeps the body salubr. A decoction of the leaves in water makes a fit bath for such as are afflicted with worms in the joints.

ANACHION, from α, ανα, and α, χαινω, I think, in Antiquity, the crime of refusing to serve in the drift. The punishment assigned for this offence was infamy.

ANAEUS, in Ancient Geography, a river of Greece, in Thessaly: also a river of Syria; and a river of the Tros, near mount Ida.

ANAX, in Ancient Writers, denotes a hero or god. The word seems formed of the Hebrew_enum, or _enaim, which dignifies the name. Some will have it originally to import giants, called also _pyrion, earth-born. Cicero affirms, that the three chief sons of Jupiter, called _oero, were also deorum._

ANAXAGORAS, in Biography, one of the most illustrious philosophers of antiquity, was born at Clazomene, in Ionia, in the first year of the 50th Olympiad, or the 500th year before Christ. In the ardent pursuit of knowledge he left his native country, in which he posseised a patrimony sufficient for securing him distinction and independence, and went to reside at Athens. Having surrendered his lands to his relations, he devoted himself wholly, as Cicero says, (Tufc., Quadr., lib. v.) to the divine pleasure of learning and inquiry. At Athens he diligently applied himself to the study of eloquence and poetry, and was particularly conversant with the works of Homer, whom he admired as the best preceptor, not only in writing but in morals. From Athens he removed to Miletus, that he might attend upon the public instruction of Anaximenes. At the age of 20 years he left Miletus, and entered upon the study and profession of philosophy at Athens, where, according to Diogenes Laertius, he remained 30 years. As a teacher of philosophy he acquired high reputation, and his pupils were some of the illustrious men of the age in which he lived; such were Euclidides the tragedian, Pericles the orator and statesman, to whom Socrates and Thucydides devoted themselves with treasurable performances. But the chief offence of Anaxagoras was, probably, the propagation of new opinions concerning the gods. There can be no doubt that he contradicted and opposed the vulgar opinions and superstitions; accordingly, it is related, that he ridiculed the Athenian priests for predicting an unfortunate event from the unusual appearance of a ram which had but one horn; and, in order to convince the people that there was nothing preternatural in the phenomenon, he opened the head of the animal, and showed them that it was so constructed, as necessarily to prevent the growth of the other horn. Anaxagoras, however, was thrown into prison, and condemned to death; and it was with difficulty that Pericles obtained from his judges the milder sentence of fine and banishment. Upon receiving his sentence of condemnation, he confided himself by saying, “Nature long ago pronounced the same sentence against me;” and to one of his friends, who expressed regret on account of his banishment, he said, with a mixture of fortitude and vanity, “It is not I who have lost the Athenians, but the Athenians who have lost me.” When news of the death of one of his sons was brought to him, as he was delivering a lecture of philosophy, he calmly said, “I know that I begat him mortal.”

After his banishment he passed the remainder of his days at Lampacus, where he employed himself in instructing youth, and obtained great respect and influence among the magistrates and citizens. At length the infirmities of age terminated his labours in the year before Christ 428. Through his whole life he appears to have supported the character of a true philosopher. Superior to motives of avarice and ambition, he devoted himself to the pursuits of science; and, in the midst of the vicissitudes of fortune, preserved an equal mind. Being asked, just before his death, whether he wished to be carried for interment to Clazomene, his native city, he said, “It is unnecessary; the way to the regions below is everywhere alike open.” In reply to a melange sent him, at that time, by the senate of Lampacus, requesting to be informed in what manner they might honour his memory after his decease, he said, “By ordering that the day of my death he annually kept as a holiday in all the schools of Lampacus.” His request was complied with, and the custom remained in Lampacus in the time of Diogenes Laertius. The festival Anaxagoros was instituted on this occasion. The inhabitants expressed their veneration for his memory, by erecting a tomb, and inscribing upon it the following epitaph:

“Εικοδ., πλαγω αληθειας; ει τε μερα περιοιαν. Οδηγησι κειμεν κλημεν Ἀναξαγορας.”

“This tomb great Anaxagoras confines,
Whole mind explored the paths of heav'nly truth.”

It is also said, that two altars were raised in honour of his memory, one dedicated to “Truth,” and the other to “Mind,” an appellation which was given him on account of the doctrine which he taught concerning the origin and formation of the world.

With the credible records of Anaxagoras many fabulous relations are intermixed; nevertheless, it is sufficiently attested, that this philosopher possessed a very extensive and accurate knowledge of nature, considering the age in which he lived, and allowing for the strange and erroneous conceptions which are blended with his more rational opinions. Of the heavens he seems to have had no other idea than that of a solid vault in which luminous bodies are fixed; and these bodies he conceived to be flanes, raised from the earth by the rapid motion of the ambient ather, set on fire by its heat, and kept in their places by the orbit of the circular motion of the heavens. On the other hand he is said to have taught, that wind was produced by the rarefaction of the air; that the rainbow is the effect of the reflection of the solar rays from a dense cloud placed opposite to it like a mirror; that the moon is an opaque body enlightened by the sun, and an habitable
habitable region, divided into hills, vales, and waters; that the comets are wundering flars; and that the fixed flars are in a region exterior to those of the sun and moon.

Of the opinion of Anaxagoras concerning the origin of the material world, the information transmitted to us is more correct. Having learned in the Ionic school that bodies are composed of minute parts, and having observed in different bodies different and often contrary forms and qualities, he concluded, that the primary particles of which bodies consist, are of different kinds; and that the peculiar form and properties of each body depend upon the nature of that class of particles, of which it is chiefly composed. A bone, for instance, he conceived to be composed of a great number of bony particles, a piece of gold of golden particles; and thus he supposed bodies of every kind to be generated from similar particles, and to assume the character of those particles. This system is thus exhibited by Lucretius, lib. i. v. 385, &c.

"— Principium rerum quam dicit homoeomieriam, Osa videlect & paullinis atque minutis Oslibus: sic et de paullinis atque minutis Vifceribus visus gigani; fangueque creerii Sanguiinis inter fe multis coeuntibus guttis; Ex aurique putat micos confinlere po/e Aurum; et de terris terram concerificare parvis; Ignibus ex ignem; humorem ex humoribus effe; Cætera confinlili fingit ratieni, putatque."

"With Anaxagoras, great Nature's law
Is similarity; and every compound form
Confists of parts minute, each like the whole;
And bone is made of bone, and flesh of flesh;
And blood, and fire, and earth, and mafly gold;
Are, in their smellt portions, fill the fame."

The absurdity of this notion is evident; it admits of no simple, uncompounded principles; it makes no provision for production or dilution, the formation of any new body being, according to this doctrine, nothing more than the collecting together of a number of small similar bodies; and it gives no explanation of the original formation of the small compound bodies of which the larger consist. The invention of the system, however, excited the ingenuity of the author, who had recourse to the notion of similar particles, with a view of obviating the objections which lay against the doctrine of atoms, as he had received it from Anaximenes. But the most important improvement which Anaxagoras made upon the doctrine of his predecessor, was that of separating, in his system, the active principle in nature from the material masses upon which it acts, and thus introducing a distinct intelligent cause of all things. The similar particles of matter which he supposed to be the basis of nature, being without life or motion, he concluded that there must have been, from eternity, an intelligent principle, or infinite mind, existing separately from matter, which, having a power of motion within itself, first communicated motion to the material masses, and, by uniting homogeneous particles, produced the various forms of nature. That Anaxagoras maintained an infinite mind to be the author of all motion and life, is attested by many ancient authorities. Plato (Phaid. Hippasus major) expressly affirms, "that this philosopher taught the existence of a dispassionate mind, the cause of all things."

Aristotle says, (Metaph. lib. i. c. 3.) that Anaxagoras taught, that mind was "the cause of the world, and of all order," and that "while all things else are compounded, this alone is pure and unmixed; and that "he ascribes to this principle two powers, to know and to move, saying, that mind put the universe into motion." Cicero (De Natura Deor. lib. i. c. 10, 11. tom. ii. p. 511. Tuelfel. Quaest. lib. iii. c. 24. tom. ii. p. 404. De Orator. lib. iii. c. 34. tom. i. p. 371. ed. Olivet.) also affirms, though not without some inconstancy, with what he had before said of Thales, that Anaxagoras was the 3rd who taught that the arrangement and order of all things was contrived and accomplished by the understanding and power of an infinite mind. Plutarch (in Pericul. Oper. tom. i. p. 174. ed. Xylander) confirms this account of the doctrine of Anaxagoras.

"The Ionic philosophers," says he, "who appeared before Anaxagoras, made fortune, or blind necessity, that is, the fortuitous or necessary motion of the particles of matter, the first principle in nature; but Anaxagoras, affirmed, that a pure mind, perfectly free from all material conceptions, governs the universe." To the same purpose Diogenes Laertius (lib. ii. n. 6. tom. i. p. 82.) represents Anaxagoras as teaching, that "the universe consists of small bodies composed of similar parts, and that mind is the beginning of motion." He was the first," says the same writer, "who superadded mind to matter, opening his work in this pleasing and sublime language," "All things were confounded, then came mind, and dispofed them in order." Dr. Davies in his note on the passage, in which Cicero seems to be charged with inconstancy, observes, that Thales supposed God to be the soul of the world, mixed and united with matter; whereas, Anaxagoras held him to be a pure mind, free from all material union and mixture. From these and other concurrent testimonies, it sufficiently appears that Anaxagoras was the first among the Greeks who conceived mind as detached from matter, and as acting upon it with intelligence and dexterity in the formation of the universe. The infinite mind or deity which his predecessors had confounded with matter, making them one universe, Anaxagoras supposed to have a separate and independent existence, and to be simple, pure intelligence, capable of forming the eternal mafs of matter according to his pleasure. Thus he asigned an adequate caufe for the existence of the visible world. Diogenes Laertius, lib. ii. in Anaxag. Plutarch in Pericle, ibi fippea. Suidas, Gen. Dic. Brucker's Hill. of Philos. by Enfield, vol. i. p. 148—153.

ANAXAGORIA, in Antiquity, a festival oberved in honour of ANAXAGORAS.

ANAXANDRIDES, in Biography, a comic poet, was a native either of Rhodes or Coalophon, and flourished during the reign of Philip of Macedon, B. C. 370—30. Suidas says he was the first who introduced on the stage love-adventures, turning upon the mishaps of young damsels. He was a perfomable man, and affected great magnificence in his drefs and equipage, and he is said to have once recited a piece at Athens on horseback. His temper was morose and sullen; and he was much chargned at the ill success of his performances, which were often incorrect, and which he would not take pains to amend and polish. Of 65 plays which he composed, ten only were crowned. The Athenians condemned him to die of a famine for a line in which their government was cenured. An "Odyfsey" of this poet is mentioned by Athenaeus. Caubon suggests, that Anaxandrides was the Alexanderides of other writers. Gen. Dic. ANAXARCHUS, a Grecian philosopher, was a native of Abdera, and belonged to the democratic faction. He flourished about the 110th Olympiad, or 340 years before Christ, and enjoyed the confidence of Alexander, whom he treated with the freedom of a friend in some instances, but with the servility of a sycophant in others. On one occasion, when Alexander aspired at the honours of divinity, this philosopher checked his vanity by pointing to his finger when it bled, saying,
ANAXILUS, a native of Lamia, lived in the time of Augustus, and professed himself a follower of Pythagoras. That his pretenions to an intimate acquaintance with the mysteries of nature, and to the exercise of magical powers might obtain credit, Pliny (Nat. Hist. lib. xix. c. 11. lib. xxviii. c. 15.) relates several curious arts by which he astonished and alarmed the ignorant multitude; and of these one was that of giving a livid and ghastly hue to the countenance by means of sulphureous flame. He was banished from Italy in the 28th year before Christ, by order of Augustus, for the crime of magic. Brucker's Hist. Phil. vol. ii. p. 10.

ANAXIMANDER, a famous Greek philosopher, was the disciple and friend of Thales, and was, probably, born at Miletus, in the 3rd year of the 4th Olympiad, or in the 610th year before Christ. An anecdote is related concerning him, from which it has been inferred, that he was employed in the instruction of youth. Being laughed at for finging or reciting his verses ill, he said, "We must endeavour to sing better for the sake of the boys." He was the first among the Greeks who taught philosophy in a public school; and is often spoken of as the founder of the Ionic school, though this honour really belongs to Thales. The mathematical and astronomical sciences are, without doubt, much indebted to Anaximander. He framed a connected series of geometrical truths, and wrote a summary of his doctrine. He is said to have been the first who delineated the surface of the earth, and marked the divisions of land and water upon an artificial globe. The invention of the fudial has been ascribed to him; but Herodotus (lib. ii. c. 72.) with greater probability, ascribes the origin of this instrument to the Babylonians. He might possibly have used a gnomon, in order to ascertain more correctly than Thales had done, the meridian line, and the points of the solstices. Pliny (lib. ii. c. 17.) refers to this philosopher the discovery of the obliquity of the ecliptic; but if Thales was acquainted with the method of predicting eclipses, he could not be ignorant of this obliquity. It is related of him that he predicted an earthquake; but we need not say, that, as this is impossible, the relation must be fabulous. Among the physical notions imputed to Anaximander are these: That the flares are globular collections of air and fire, borne about in the spheres in which they are placed; that they are gods, that is, inhabited and animated by portions of the divinity; that the sun has the highest place in the heavens, the moon the next, and the planets and fixed stars the lowest; that the earth is a globe, placed in the middle of the universe, and remains in its place; and that the sun is 28 times larger than the earth.

The doctrine of this philosopher concerning the first principles of things, and the origin of nature, is so obscure and variously related, that it cannot be well ascertained. His general system seems to have been, that infinity, τὸ ἁμαρτζόμενον, is the first principle of all things; that the universe, though variable in its parts, is immutable as a whole; and that all things are produced from infinity, and terminate in it. What Anaximander meant by infinity, and whether he understood by it the material subject, or the efficient cause of nature, are subjects of controversy. Plutarch affirms, (Philo. Philib. lib. i. c. 7. Oper. vol. ii. p. 875.) that the infinity of Anaximander was matter; and Aristotle (Nat. Audio. lib. i. c. 5. lib. iii. c. 4. Oper. tom. i. p. 310—323.) explains it in the same manner; and several modern writers adopt the same idea. Others suppose that he used the term infinity to denote the humid mass of Thales, together with the divine principle by which he supposed it to be animated. This opinion is supported by the authority of Herimans, who affirms (Iris. Gen. § 10. apud Tation.) that Anaximander supposed an eternal mover or first cause of motion, prior to the humid mass, or 18 ὑγιόν of Thales. And Aristotle himself speaks of the infinity of Anaximander, as comprehending and directing all things. Anaximander is said to have been the first who laid aside the defective method of oral tradition, and committed the principles of natural science to writing. Anaximander lived 64 years. Diog. Laert. lib. ii. Strabo, lib. iii. Pliny, lib. vii. c. 76. Suidas. Ensef. Prap. Er. lib. x. c. ult. Brucker, by Ensef. vol. i. p. 145—147.

ANAXIMANDRIANS, a name given by some writers to the followers of Anaximander. These are otherwise denominated hypotithites; and stand opposed to the atomists. The Anaximandrians make the most ancient sect of philosophical atheists; they allow of nothing in nature but bodies. These bodies, they assert, admit of qualities which produce and destroy each other, in a circle without beginning or end. See ANAXIMANDER.

ANAXIMENES, a philosopher of Miletus, was born about the 57th Olympiad, or 535 years before Christ, and was a disciple and companion of Anaximander. On his inquiring into the nature and origin of things, he traced the footsteps of his master, and endeavoured to throw new light upon his system. According to him the first principle of all things is fire, which is infinite or infinite, and perpetually active. The other is a productive body, animated with a divine principle, whence it becomes the origin of all things, and is God. His doctrine, therefore, was a continuance of that of Thales and Anaximander, with this difference, that he supposed the divine energy to reside in air or ether. He also taught, that all minds are air; that fire, water, and earth proceed from it by rarefaction or condensation; that the sun and moon are fiery bodies of a circular form; that the stars, which are fiery sublunations, are fixed in the heavens, like fluids in a crystal plate; and that the earth is a plane tablet rising upon the air. Plato. Plac. Philib. lib. i. c. 36. lib. ii. c. 11. lib. iii. c. 10. Oper. tom. ii. p. 876—888—894. Cicero. de Nat. Deor. lib. c. 10. Oper. tom. ii. p. 511. Academ. lib. ii. c. 57. tom. ii. p. 64. Suidas. Diog. Laert. lib. ii. Brucker, by Ensef. vol. i. p. 147.

ANAXIMENES, a Greek rhetorician and historian, was the son of Aristocles, of Lampascus, and the disciple of Diogenes the Cynic, and of Zosimus of Amphipolis, who railed against Homer. He was born about 530 years before Christ; and employed by Philip of Macedon to instruct his son Alexander in the art of rhetoric. Some have ascribed the treatise on rhetoric, which bears Aristocles's name, to Anaximenes. This learned man, with many others, accompanied Alexander in his expedition against the Persians; and he contrived by a smart and reasonable retort, mentioned under Alexander, to preserve the city of Lampascus. On another occasion having conceived a grudge against the historian Theopompus, he revenged himself by writing a severe satire against the Spartans and Thebans, exactly in the style of Theopompus, and adding to it, under his name, to the Athenians. By this deception, though not of the most honourable kind, he gratified his resentment, and exposed his adversary to reproach and ill-will throughout all Greece.
Greece. Anaximenes wrote a history of the life and actions of Philip, and another of those of Alexander; and he also wrote 12 books on the early history of Greece, beginning with the theogony, or fabulous history, and ending with the battle of Mantinea, which was fatal to Epaminondas. But none of these works are extant. Suidas, Pausian. Eliae lib. ii. c. 19. p. 495. ed. Kuhnii. Gen. Dict.

ANAZARBUM, in Ancient Geography, a city of A sia, in Cilicia Pepper, or Cilicia Campellis. It was situated on the river Pyramus, at some distance from the sea. Suidas informs us that it was first called Cyinda, and afterwards Anazarb, from its founder Anazarbus, who was sent by the emperor Nerva to rebuild it, after it had been quite ruined by an earthquake; but he is certainly mistaken, since Piny, who died long before the reign of Nerva, calls the inhabitants of this city Anazarb. The etymology of Stephanus Byz. is therefore more probable, who derives its name from mount Anazarbus, at a small distance from the place where this city stood. The territory adjacent to Anazarb was very fertile, and produced abundance of grain and fruit. The symbols of this fertility were expressed on the coins of the city; such as the cornu-coqus, ears of corn, branches loaded with fruit, &c. This city is distinguished by an era, marked on its medals, called the era of Anazarbus. The Abbé Belley, (Mem. de Lit. tom. xxx. p. 714.) proves that this era ought to commence with the year of Rome 735, 10 years before the Christian era. By a decree of the senate it had permission to assume the name of Caphares, in acknowledgment of the privileges conferred upon it by Augustus. It also took the name of Julianopolis and Julianinaopolis, in honour of the emperors Julian and Justinian. When this city was nearly demolished by an earthquake, it was repaired by Nerva; and after a similar catastrophe, it was raised from its ruins under the reign of Julian or Justinian. The citizens of Anazarb were divided into three classes or orders, comprehending the people, the council, and the senate. At the commencement of the fifth century Cilicia was divided into two provinces; and Anazarb was the metropolis of the second province. This division contained nine cities, and Anazarb excluded the jurisdiction of a metropolis, and its bishops had the rank and jurisdiction of metropolitans. It possessed the distinguishing privilege of autonomia, i.e. of having its own magistrates, and of being governed by its own laws. When the provinces of Asia were divided under the emperors of Constantanople, after the reign of Herachius, into themes, or military departments, Anazarb was comprised with Cilicia in the theme of Seleucia. When this city embraced the Christian religion, it became dependent on the patriarchate of Antioch; and it is said to be the first church in the world. The Turks call it An-Zeber. This city was the birthplace of Dioscorides, and of the poet Oppian.

ANAZIA, in Geography, a town of Asia, in Greater Armenia, near Mount Taurus. It is in the government of Van, not far from a lake which bears this name.

ANAZZO. See Gnata.

ANBAR, in Geography, a town of the province of Chaldia, or Irac-arabi, on the Euphrates, called also Aschemin.

ANBERTKEND, in the Eastern Languages, a celebrated book of the Brachmans, containing the Indian philosophy and religion. The word in its literal sense denotes the cipher, wherein is the water of life. The ambertkend is divided into fifty beths, or discourses, each of which consists of ten chapters. It has been translated from the original Indian into Arabic, under the title of Mursat al Mawii, q.b. "the marrow of intelligence."

ANBORD, in Geography, a town of Peris in the province of Khwafan, 50 leagues north-east of Meshid.

ANBURY, in Agriculture, is a dilsafe in the roots of Vol. II.

turnips, which is described by Mr. Marshall, in his Rural Economy of Norfolk, in the following manner: "It is a large excrecence, which forms itself below the apple. It grows to the size of both the hands, and, as soon as the hard weather sets in, or it is by its own nature brought to maturity, becomes putrid, and smells very offensively. At present (says he) the state of these specimens which have been taken up and examined attentively, is this: the apples of the turnips are just forming (about the size of walnuts in the hulke), while the asparagus are already as big as the egg of a goose. They are irregular and uncouth in their form, with inferior excrecences (refembling the races of ginger) hanging to them. On cutting them, their general appearance is that of a hard turnip; but on examining them through a magnifier, there are veins, or firing-like vessels, dispersed among the pulp. The smell and taste somewhat resemble these of turnips, but without their mildness, having an aulfer and somewhat disagreeable flavour, refembling that of an old firngy turnip. The tops of these which are much affected turn yellow, and flag with the heat of the sun: so that in the day time they are obviously distinguished from those which are healthy. It seems to be an idea among farmers, that the caufe of the anbury is the soil's being tired of turnips; owing to their having been too often sown on the same land. This, however (he contends), is positively erroneous; for the piece from which these specimens were drawn was an old orchard, and never before bore turnips in the memory of man."

The nature and caufe of this vegetable disease do not appear to be yet fully explained; but it is probable that drought has much effect in producing it, as it is found to be the most prevalent in such places. The author just mentioned, however, seems to suspect that it may be induced by some form of grub or other, wounding the vessels of the tap-root, and thus diverting the course of the sap-juice, by which means excrecences of this kind are formed, instead of the apple of the turnip. Whatever may be the cause of the disease, experience has shown, that the most effectual remedy is that of frequent hoeing, or stirring the ground about the plants, in order to admit air and moisture more freely.

ANCA, in Middle Age Writers, denotes the thigh, or hind-leg.

In which sense the word is also written Ancus.

ANCEUS, in Entomology, a species of Papilio found in India. The wings are entire, black, with a blue bar on the anterior pair, and a ferruginous one on the posterior pair. Under side green. Gmelin. This is the Papilio Obrinus of Fabricius.' Spec. Inf.

ANCALE, or Acalp., in Ancient Geography, a town of Arabia Felix, according to Ptolemy.

ANCALITAE, inhabitants of Britain, were feated near the Attribates, and were probably a clan of that nation. Mr. Baxter (Gloss. p. 14.) thinks they were the cangi, or herdmen and shepherds of the Attribates, and policed those parts of Oxfordshire and Buckinghamshire which were most proper for pasture. After they were subdued by the Romans, the government of them, with that of some of their neighbouring states, was followed upon Cogidunus, the British king of the Dobuni, as a reward for his early submission, and great fidelity to the Romans.

ANCAMARA, or Antamara, in Geography, a people of South America, who live near the banks of the river Madera, which discharges itself into the river of the Amazons.

ANCANICUM, in Ancient Geography, a district of Spain in Bética.

ANCAON, Serra de, in Geography, a chain of mountains in Beira, a province of Portugal, which joins to another called Serra d'Estrella.
ANCARA, in Ancient Geography, a town of Italy, mentioned by Stephanus Byz.

ANCARANO, Peter Dr, in Biography, a celebrated citizen of Bologna, flourished in the 15th century. He rivalled Baldus, his master, in the knowledge of the civil and canon law. In 1469 he defended the council of Pisa against the ambassadors of Robert duke of Bavaria, and evinced its right to proceed against Gregory XII. and Benedict XIII., in order to terminate the schism. He died at Bologna in 1471, and left behind him in Latin, "Commentaries on the Decretals and Clementines," printed at Lyons, Venice, Bologna, &c. On his tomb was inscribed an epitaph, in which he called "the mirror of the canon law, and the anchor of the civil."

ANCARANO, in Geography, a town of Italy, in the marquisate of Ancona, situated on the Tronto, six miles call of Acoli. N. lat. 42° 48'. E. long. 14° 54'.

ANCASTER, a village of England, in the county of Lincoln, was formerly a Roman station, of which many vestiges are now visible: 116 miles from London.

ANCEIS, a town of France, and principal place of a district, in the department of the Lower Loire. It is situated on the Loire, in a very agreeable and fertile country. It is the ancient Ancisium, the capital of the An- mites, a people who lived about the mouth of the Loire. The place contains 2,623, and the canton 11,169 inhabitants. The territory includes 200 kilometres and 7 communes. N. lat. 42° 23'. W. long. 1° 15'.

ANCEPS, in Botany, denotes two-edged.

ANCEPS, in Conchology, a species of Patella. It is solid, glossy, and rather pointed, outside pale chequers, within white tinged with flesh-colour. Gmelin.

ANCÉRVILLE, in Geography, a town of France, in the department of the Meuse, and chief place of a canton, in the district of Bar-le-due; one league call of St. Diézir, and three leagues south-south-west of Bar-le-due. The place contains 2,200, and the canton 9,669 inhabitants. The territory comprehends 220 kilometres and 18 communes.

ANCÉRVILLE is also a town of France, in the department of the Moselle, and chief place of a canton, in the district of Morhange, three leagues and a half well-north-west of Morhange, and three east-south-call of Metz.

ANCESTORS, progenitors, are those from whom a person is descended, exclusively of his immediate parents.

The word is derived from the Latin ances, written, by contraction, for anced, q. d. gers before.

Most nations have paid honour to their ancestors. It was properly the departed souls of their fore-fathers that the Romans worshipped under the denomination of morts, lemures, and houseold gods. Hence the ancient tombs were a kind of temples, or rather altars, wherein obligations were made by the kindred of the deceased. The Russians have still their anniversaries feasts in memory of their ancestors, which they call rotitflis bod, q. d. ines fobath, wherein they make formal visits to the dead in their graves, and carry them provisions, canestales, and presents of divers other kinds. They interregate them with loud lamentable cries. What are they doing? how they spend their time? what it is they want? and the like.

The Quis, a people of Africa, offer sacrifices of rice and wine to their ancestors, before they ever undertake any considerable action. The anniversaries of their deaths are always kept by their families with great solemnity. The king invokes the soul of his father and mother to make trade flourish, and the chace succeed.

The Chinefe seem to have distinguished themselves above all other nations in the veneration they bear their ancestors. By the laws of Confucius, part of the duty which children owe their parents consists in worshipping them when dead. The service, which makes a considerable part of the national religion of the Chinefe, is said to have been instituted by the emperor Kun, the fifth in order from the foundation of that ancient empire.

The Chinefe have both a solemn and ordinary worship which they pay their ancestors. The former is held regularly twice a year, viz. in Spring and Autumn, with much pomp. A person who was present at it gives the following account of the ceremonies on that occasion.

The sacrifices were made in a chapel well adorned, where there were fly altars furnished with censers, tapers, and flowers. There were three ministers, and behind them two young acolytes; he that officiated was an aged man, and a new Christian. The three former went with a profound silence, and frequent genuflexions towards the five altars, pouring out wine; afterwards they drew near to the fiinth, and when they came to the foot of the altar, half-bowed down, they said their prayers with a low voice. That being finished, the three ministers went to the altar, the priest took up a vessel full of wine, and drank; then he lifted up the head of a deer or goat; after which taking fire from the altar, they lighted a bit of paper; and the minister of the ceremonies turning towards the people, said, with a high voice, that he gave them thanks in the name of their ancestors for having well honoured them, and in remunence he promised them, on their part, a plentiful harvest, a fruitful line, good health and long life, and all these advantages that are most pleasing to men.

All the Chinefe, Pagans as well as Christians, give their ancestors another simpler and more private worship. To this end they have in their houses a niche or hollow place, where they put the names of their deceased fathers, and make prayers and offerings of perfumes and spices to them at certain times, with bowing, &c. They do the like at their tombs.

It has been a question warmly agitated of late years, whether the worship which the Chinefe pay their ancestors be religious, or only of a civil nature. The Jefuits, who not only allow their neophytes, or new converts, to join in it, but even allow it to themselves, are necessitated to maintain the latter, to screen themselves from the charge of idolatry; the Dominicans and other missionaries maintain the former, and prohibit the service as absolutely unlawful.

The Jefuits argue, that with relation to the first institution, these honours might be given to our ancestors, since at first they appear to have been only civil; even though they should since, through the superfluous disposition of the people, have degenerated into idolatry. But it is answered, that, by this argument, the most grotious worship of idols might be authorized, because all idolatry appears at first only to have been civil worship, as is maintained in the book of Wildom. chap. xiv. ver. 15.

The Jews settled in China are said to worship their ancestors like the heathens, and with the same ceremonies, except that they offer not wine's flesh. Near their synagogue they have a hall, or court of ancestors, wherein are niches for Abraham, Isaaq, &c. The Jefuits also conformed, and were permitted by their general to conform to this, and many other superfluous customs of the Chinefe. See the proof of this in Pathchall's Provincial Letters, paffim.

There is one peculiarity of another kind, wherein the Chinefe shew their regard for their ancestors; in proportion as any of their descendants are preferred to a higher degree of dignity, their dead ancestors are at the same time preferred and ennobled with them. The kings Ven, Van, Veu, Van, Cheu, and Cum, who were descended from vassal kings, when they mounted the imperial throne, raised their ancestors from the vassal...
ANC

valid or depending late wherein these had lived, to the dignity of emperors; so that the same honours were for the future rendered them as if they had been emperors of China. The same example was followed by the subjacent kings, and now obtains among the grandees and literati; all now worship their ancestors, according to the rank which they themselves hold in the world. If the son be a mandarin, and the father only a doctor, the latter is buried as a doctor, but sacrificed to as a mandarin. The like holds in degradation, where the condition of the fathers is that of their sons. The law distinguishes between ancestor and predecessor; the former being applied to a natural person, as such an one, and his ancestor; and the latter to a body politic or corporate, as a bishop, and his predecessors.

Ancestor, disability by the act of. See Disability.

Ancestrel, in Law, something relating to a man's ancestors.—Thus.

Ancestrel, homage, signifies homage that has been done or performed by one's ancestors.

Ancestrel, alien, See Action.

Anca, in Geography, a town of Asia, in Mingrelia, 120 miles north-east of Trebizond.

Anca is also a town of Asia, in the country of Georgia, and province of Satabago, 65 miles south west of Akhaliza.

Anchedia, an island near the western coast of India.

Anchesmus, in Ancient Geography, Agisios Gegezor, or Mount St. George, a mountain of Attica, upon which was placed a statue of Jupiter Anchesmus. Paulanias, in Attic. lib. i. c. 52. p. 78.

Anchial, a town of Asia, in Cilicia Campetris, situated near the sea, to the south-west of Tarsus. Some authors say, that it was built by Sardanapalus. Athenodorus pretends, that it was founded by Anchiale, the daughter of Japhet.

Anchiale was also a town of Illyria, built by the Parians.

Anchialus, a river of Cilicia, which watered the town of Anchiale.

Anchialos, or Anchialus, called by Pline Anclialus, a town of Europe, in Thrace, situated upon the Euxine sea, south-west of Mælembia. It was an episcopal see, dependent upon the patriarchate of Constantinople.

Anchialos was also in Greece, towards the Pelage gulf, according to the Argonauts of Orpheus.

Anchialos was also a town of Epirus, the inhabitants of which pretended that Anchiles died in their town. Others refer it to Illyria.

Anchiops, or Anchilops, in Surgery, from any near, and ςυς, the eye; a tumor in the lacrymal sac, near the inner angle of the eye, forming an inflamed fistula lacrymalis. See that article, and Egiilops. These swellings are of different kinds. The most common kind is a tumor, situated in the cellular texture immediately surrounding the lacrymal sac, and combined with redness, heat, and pain, which afflicts the external skin, and bears a considerable resemblance to an inflamed fistula lacrymalis. This resemblance frequently becomes more marked by the cutaneous inflammation acting upon the lacrymal duct in such a manner, as to obstruct the passage of the tears through it; the consequence of which is a flow of tears from the eye, and a swelling of the lacrymal sac.

The inflammatory tumor soon goes on to suppuration; an event which, provided we can do it early enough, we should endeavour to prevent by the external application of a fumunine wash, and other remedies that promote resolution of the inflammation, as well as by cooling evacuants. When suppuration has already taken place, and produced an abscess at the inner canthus of the eye, we are still more liable to be led into error, as we may easily mistake the fluctuation of the pus for the motion of some fluid contained in the lacrymal sac. This error, which might possibly induce us to make an incision into the found lacrymal sac, may, however, be easily avoided, by recollecting that the lacrymal passage was not previously diseased, that the tumor was at first hard, and that the lacrymal sac, only suppurated after wards. Moreover, in this disea, the matter cannot be squeezed with the finger out of the tumor, through the pointa lacrymalis, or the nose, (as it may when the lacrymal sac is filled with matter) unless the matter has already corroded the lacrymal duct, so as to produce a communication between it and the abscess. We may also distinctly observe, that both the inflamed and the subfequent suppuring tumor lies flat under the skin, and that at first the collection of matter is surrounded with inflammatory hardnes; whilst, on the contrary, the lacrymal sac, when filled with matter, is soft, and affords the sense of fluctuation throughout its whole extent, from the very commencement of the disorder. This complaint, however, may at times produce a real inflammation of the lacrymal ducts, and consequently also a true fistula lacrymalis.

When, in an inflammatory tumor of the angle of the eye, symptoms of incipient suppuration make their appearance, the surgeon may apply, during the night, the Emp. Litharg. vel diacetyl. comp. and, in the day time, emollient and somewhat stimulant poultices, in order to invite the matter towards the surface. These must be applied warm and frequently; in doing which, care should be taken that they do not come into contact with the eye, which, on that account, should previously be covered with compresses dipped in rofe-water. As soon as there is the least reason to suppose that pus has been formed, the tumor must be cut open; for, in these cases, it is of great consequence that the pus should be discharged as soon as possible, as otherwise it easily makes its way downwards, by which not only the lacrymal sac may be laid bare and corroded, but also the neighbouring bones, &c.

The incision is made with a lancet, but as remote as possible from the inner canthus of the eye, and proportionate to the magnitude of the tumor. The lancet must not be introduced in a perpendicular direction, but obliquely, for fear of injuring the lacrymal sac. When the matter and blood have been discharged, we should introduce some loose lint into the orifice, and cover it with a simple plaster. Over this we may lay a compresse, dipped in rofe-water. The ulcer is afterwards to be cleansed with mild digestive ointment, and suffered to heal up.

When the surgeon is not called in till the abscess has already been completely formed, he should immediately lay it open, and examine the state of the bone. When the bone is bare, some tumour of myrrh, or aloes may be used, and dry dressings applied, in order that we may not increase the ulceration, which is generally already considerable. When the exfoliation of the bone, and the cleaning of the ulcer have been completed, the healing of the sore should be promoted by the proper applications.

The anchilops may at times consist in a hard tubercle or knot, from which a cancer may be produced. This disease is to be treated like other scirrhous tumors. See Scirrhus.

Sometimes the tumor is of the encysted kind, most generally of the species of Atheroma. In this disease no pain is felt, the tumor is of an uniform colour, circumscribed, smooth, and moveable. Such a tumor also, like every other...
archilops, may by its mere prelative impede the function of the lacrymal ducts, and occasion an lvetinus, or watery eye. It may generally be softened by means of Empl. thach. comp., and brought to suppuration; otherwise it is to be diffected out with the knife.

This tumor may also arise from an accumulation of fluid between the lacrymal sac and the external skin. Such a sonous, uninflected tumor seldom opens itself spontaneously outwards; it more commonly happens, that it is connected with one of the two puncta lacrimalis, or lacrymal ducts, generally lower in which case the fluid may indeed be diffected out through one of the puncta lacrimalis; but it may, nevertheless, be easily distinguished from a swelling of the lacrymal sac, by the circumstance that the latter generally yields to the slightest pressure, whilst the former cannot be made to collapse, unless by pressing it from below upwards, and its tension can be diminished except in a gradual manner.

When the sonous archilops is not yet in communication with the lacrymal ducts, (as generally is the case,) it may readily be distinguished from the dilation of the lacrymal sac, by the single circumstance of its not being by any means praecificable to squeeze out the fluid.

There are certain circumstances under which the lacrymal tumor does not yield to prelative; namely, when the lacrymal ducts are contracted or inflamed, foas to prevent the reception of the fluid contained in the lacrymal sac. But when these passages are in a sound condition, and when the tumor of the larger canthus does not yield to prelative, there can be no doubt that the disease is situated without the lacrymal sac.

When the resolution of such a sonous tumor, which we may at first attempt to bring about, does not soon take place, the safest and most expedients method is to open it, and discharge the matter by means of a lancet, which must here also be introduced in an oblique direction. The wound should be filled up with dry lint, which, in the subsequent dressings, ought to be dipped in some detersive and drying solution, such, for example, as a very weak solution of lapis infernalis, and secured by means of a plaster.

Finally, in the venereal disease there is sometimes produced, in the region of the larger canthus of the eye, an exfoliis from the menings coronaee, or maxillare; by which a tumor is formed in this part that may easily be distinguished from other kinds of archilops. By its being hard, improveable, and generally of an uneven surface. It occasionas a comprenion of the lacrymal passages, which gives rise to a constant epiphora. We may, in such cases, employ internally mercurial remedies, and a decoction of Coft. Mzererei, and, at the same time, rub mercurial ointment upon the tumor, apply mercurial plasters, &c. by which a speedy cure is frequently produced: but, for the treatment of venereal disorders, see Syphilis and Lues Venereae.

ANCHROMACUS, in Middle Age Writers, denotes a kind of vefel, which, on account of its nimble failing, was used for the conveyance of anchors, and other necessary utensils of ships.

In this fenfe, the word is also written ancremoragus, anchirromacbus, ancremagonus, anchirhomagonus, ancremoragonus, and anchirromagonus.

ANCHISES Portus, a name given by the ancient Romans to the port of Onchiums, in Epirus, to the ealt of Corcyra.

ANCHISES, in Entomology, a species of Papilio (Eq. Tr.) that inhabits America; it is black both above and beneath, with seven oval scarlet spots on each of the posterior wings. Lieznus. The larva from which this butterfly is produced, is said to be gregarious, spinous, brown with white rings, and yellow borders; the pupa brown, with four teeth at the anterior part. Vide. Fab. Gmel. Me- tian, &c.

ANCHISES, in Fabulous History, a Trojan prince, descended from Daradus, and the son of Capys. Venus appeared to him in the form of a beautiful nymph, and made love to him. Their offspring produced Aneas, the hero of Virgil's Aeneid. It is said that he lived to the age of 80, and was buried on Mount Ida, where the Shepherds paid honours to his monument. According to Virgil, Aneas took his father on his shoulders, and made his choice with him the night on which Troy was taken. See Aneas. Some say, that Anchises lived till his son's arrival in Italy, that kind of promienie, which the deities had ordered him to go in search of, through a thousand dangers. Cat. Damiarius Faliscus, and Strabo, adopt this opinion. Gen. Dict.

ANCHISIUS, in Ancient Geography, a mountain of Peloponnesus, in Arcadia, to the north of Mantinea.

ANCHITHE, a people placed by Tolemy in Arabia Felix, near mount Chiraz.

ANCHOA, a town of Greece, in Braxis, placed by Pline at the mouth of the Cephiphus. Strabo mentions also a lake of the same name.

ANCHOR, Anchora, from the Latin ancor, or anchor, of the Greek ακών, which comes from ακόι, incurvus, curved, a large, strong, and heavy piece of iron, composed of a long shaft, having at the end a ring to which the cable is fastened, and at the other two arms or flukes, with bars or edges on each side, and used for fixing and retaining a vessel in a harbour, road, or river.

The anchor is an instrument of very ancient use. Pline (lib. viii. c. ute.) describes the invention of it to the Thracians; and Paulainias (Attic. lib. i. c. 2. p. 12.) refers it to Mithis, the son of Gordius, who built the city Ancyra. The most ancient anchors were of iron, and sometimes of wood, to which a quantity of lead was attached; in some places they used balest full of flones, and bakes filled with sand. These were fastened by cords, and their weight regulated the movement of the ship. After this anchors were constructed of iron, and furnished with teeth or flukes, which falling to the bottom of the sea, kept the ship immovable; hence κομόν, teeth, are used for anchors. The first anchors had only a tooth or fluke, on one side; and on this account they were denominated κομόμοι; the contrivance was completed, according to Pline, (ubi supra.) by Eupalamus, who made them flaked both ways, or according to Strabo (lib. vii. ex Ephor. tom. p. 46.) the second tooth or fluke was added by Anacharis, the Scythian. The anchors with two teeth were called κομόμοι, or κομομομοι. Every ship had several anchors, the largest of which was called μεγαλος, sacred, and was never used but in extreme danger; whence the phrase “σαμαρανθαρομαντε" is proverbially applied to such as are reduced to their last refuge.

All anchors have now two arms; but not they might fill be used with only one arm, which structure would have this advantage, that they would be lighter, and yet in fine weather would hold equally firm with the double kind. The reason of having two arms is, that the anchor may always take, in order to which it is necessary that it be very heavy; besides, that anchors with a single arm would require more preparation for service.

Travellers tell us of people who make use of wooden anchors in their navigation. The inhabitants of the island of Ceylon, in lieu of anchors, use large round stones, and...
in other places, their anchors are a kind of wooden machines, loaded with stones. Sometimes bags of sand have been made use of, but these chiefly obtained in rocky places, where anchors would not take hold. In England, France, and Holland, anchors are made of forged iron; but in Spain, they are sometimes made of copper, and likewise in several parts of the South sea.

The anchors now made are so contrived as to sink into the ground as soon as they reach it, and to hold a great strain before they can be loosened or diffused from their position. The parts of which an anchor is composed are the ring, into which the cable is fastened, the beam, or flank, which is the longest part of the anchor, the two arms, at the end of which are the two flukes or flukes, by some called the palms, which with their bars fallen into the ground, and the fluke, which is a long piece of wood, fastened across the beam, near the ring, and serving to guide the flukes in a direction perpendicular to the surface of the ground; so that one of them sinks into it by its own weight, as soon as it falls, and is held preferred readily in that position by the fluke, which, together with the flank, lies flat on the bottom. In this situation it must necessarily sustain a great effort before it can be dragged through the earth horizontally. This, indeed, can only be effected by the wind or tide, or by both of them; the effect of which is sometimes increased by the turbulence of the sea, and acts upon the ship so as to stretch the cable to its utmost tension, and may thus dislocate the anchor from its bed, especially if the ground be soft, and oozy, or rocky. When the anchor is thus displaced, it is said, in the sea-phrase, "to come home".

The several parts of the anchor, above enumerated, bear the following proportions. The length of the arm, from the inside of the throat to the bill, is the distance marked on the flank for the trend, taken from the inside of the throat; and three times that is the length of the flank from the tip of the crown; and the flank, from the tip of the crown to the centre of the ring, is the length of the iron stock; when made, the two arms, from the inside of the throat to the extremity of the bill, should form an arc of a circle, containing 120 degrees. See Plate XI. Ships.

Of anchors there are the fleet, becket bower, small bower, and spare anchor. These do not vary in form or weight in other, in the navy. Stream and kedge anchors are smaller, and grapnel are only for boats. Ships of 120, 100, 98, and 50 guns, have seven anchors; from 80 to 20 guns inclusive, fix anchors; ships of 300 tons, and sloops have five; and brigs and cutters three anchors.

Anchors, method of making. The goodness of the anchor is a point of great importance; the safety and conserva-
tion of the vessel depending principally upon it. The flank, arms, and flukes, are first forged separately; then the hole is made at one end of the flank for the ring, which being also previously forged, is put into the hole of the flank, and the two ends flut together. After which the arms are flut to the flank, one after the other, and the anchor is finished.

The flank is made of many long bars of the best touch iron, well wrought together; and great care should be taken, that the iron be neither too soft nor too brittle; the latter rendering it liable to break, and the former to fracture. The number of bars sufficient to make the flank of the intended size must be regulated by experience. Several parts of the anchor are governed by the size of the trend, which is marked on the flank at the same distance from the inside of the throat as the arm measures from the inside of the throat to the extremity of the bill. The flank is rounded to the square of the upper part, and is there called the small round, being the smallest part. The two sides in the direction of the arms are flat surfaces, about an inch less than the trend, in large anchors, and something less in smaller ones. The squared part is of the same size as at the trend each way, and hanches into the small round, one-sixth of the length of the flank. The hole, or eye, for the ring, is punched through the square part, or the flatted side, once and a half the thickness of the ring, from the upper extremity of the flank, which has its corners flatted or diamonded, on the same sides nearly, in the middle. Between the hole for the ring and lower part of the square are two small prominences, raised across from the fold, called nuts, for securing the stock in its place. At the lower part of the flank is left a leaf, or flatted surface, with a shouder on each side, for flutting on the arms.

In making every part of an anchor the nicest attention should be observed, as to its being smooth, fair, and even; and that the edges and angles are preferred straight in their direction, as well-made anchors should profess beauty as well as strength. The ring, being previously forged, is put through the fore-mentioned hole in the flank, and the two ends are well flut together. The arms are made of shorter piece than the flank, but as good in quality, and as well put together; these are round and flatted on the different sides, to resemble the flanks, and are of the same size as the flank, at the throat and small round. The rounding part is continued to the palm, which is nearly in the middle of the arm; from thence it is made with a square tapering to the bill on the flatted side; and, on the inner rounded side, is made a square foot for flutting on the palm, that the palm, when flut on, should project its thickness at the bafe or inner part, the outer part making a straight surface with the neck or bill. The bck or outer side of the arm is made straight from the rounded part, or hanch, to the snape, and there kept to half the subsidence of the inner part. The snape resembles the bill of a duck, and is one-third the breadth of the palm in length. The thickness of the ring is to be half the diameter of the small round. The diameter of the ring, including the thickness, reaches from the hole in the upper part of the flank to the hanch of the small round. The inner part of the arm is molten made straight, from the bill to the throat; and it is thought stronger for having a small angle in its length, inclining to the flank. Shanks taper in their length, one and one-half inch in small anchors to three inches in large, keeping their proper size at the trend; and three-fourths of an inch to two inches in the flatted way. The arm in its length inclines to the flank, and forms a small angle, the touch or point thereof being in the middle. The throat-end of the arm is curved, or flatted, to answer the scarf in the flank, to which the two arms are united (after the palms are flut on) in the firmest manner possible; and it is elevated above the horizontal plane, or inclined to the flank, that each arm may spread at the neck or bill. The length of the arm, from the inside of the throat to the extremity of its bill, is then taken, and that length from the inside of the throat is set upon the flank, and called the trend; from the trend to the bill is formed an angle of about 60 degrees. The palms, or flukes, are two thick plates of iron, made of various thickness, well wrought together, in the form of an isosceles triangle; one and one-half inch to one and one-fourth inch longer than the breadth of the bafe, and curve about as much in their sides. The bafe or lower part, is to be straight; the inner flat surface curves a little in the breadth, but is straight lengthways.
The anchor is computed, that the lower side half of the upper end of the shank, transverse to the flukes or palms; and the nuts are let into the middle of the stock. The length of the stock is the length of the shank and half the diameter of the ring; the depth and thickness in the middle are as many inches as the stock is feet in length. The ends are to be kept square, half the depth or thickness in the middle. The upper side next the ring is always kept straight, as is the lower side half the depth on each side the middle; and thence it tapers to each end in the above proportion. It is necessary to leave an opening in the middle of one and one-half inch, between the two pieces, that the hoops may be driven nearer the middle, in case the stock should shrink. The making of anchors is a very laborious business, and has been much facilitated by the invention of two machines, called the Hercules and the Monkey.

Proof is made of anchors, by raising them to a great height, and then letting them fall again on a kind of iron block placed across for the purpose. To try whether the flukes will turn to the bottom, and take hold of the ground, they place the anchor on an even surface, with the end of one of the flukes, and one of the ends of the stock reposing on the surface; in case the anchor turns, and the point of the fluke rises upwards, the anchor is good.

For the proportions of anchors according to Manwaring, the shank is to be thrice the length of one of the flukes, and half the length of the beam. According to Aubin, the length of the anchor is to be four-tenths of the greatest breadth of the ship; so that the shank, e. gr. of an anchor in a vessel thirty feet wide, is to be twelve feet long. When the shank is, for instance, eight feet long, the two arms are to be seven feet long, measuring them according to their curvature. A to the degree of curvature given the arms, there is no rule for it; the workmen are here left to their own discretion.

Aubin, in his Marine Dictionary, gives a table from a Flemish writer, wherein the lengths of the shanks of anchors for vessels of all widths, is computed, as well as the weights of the anchors. from a vessel eight feet wide within, which requires an anchor three and one-half feet long, weighing thirty-three pounds, to a vessel forty-five feet wide, which demands an anchor eighteen feet long, and weighing 5832 pounds. He likewise observes, that the anchor of a large heavy vessel is smaller, in proportion, than that of a lighter one. The reason he gives is, that though the sea employs an equal force against a small vessel as against a great one, supposing the extent of wood upon which the water acts to be equal in both, yet the little vessel, by reason of its superior lightness, does not make so much resistance as the greater; the defect whereof must be supplied by the weight of the anchor.

From these and other hydrometeric principles, the following table has been formed; wherein is shewn, by means of the ship's breadth within, how many feet the beam or shank ought to be long, giving it $\frac{1}{2}$ or $\frac{3}{4}$ of the ship's breadth within; by which proportion may be regulated the length of the other parts of the anchor. In this table is represented likewise the weight an anchor ought to be for a ship from eight feet broad to 45, increasing by one foot's breadth; supposing that all anchors are similar, or that their weights are as the cubes of the lengths of the shanks.

<table>
<thead>
<tr>
<th>Breadth of the Vessel</th>
<th>Number of Feet</th>
<th>Weight</th>
<th>Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>8</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>4</td>
<td>47</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>4</td>
<td>61</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>4</td>
<td>84</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>5</td>
<td>115</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>5</td>
<td>147</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>6</td>
<td>179</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>6</td>
<td>219</td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td>6</td>
<td>265</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
<td>6</td>
<td>314</td>
</tr>
<tr>
<td>18</td>
<td>18</td>
<td>7</td>
<td>373</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>7</td>
<td>432</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>8</td>
<td>512</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
<td>8</td>
<td>592</td>
</tr>
<tr>
<td>22</td>
<td>22</td>
<td>8</td>
<td>684</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
<td>9</td>
<td>778</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
<td>9</td>
<td>884</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>26</td>
<td>26</td>
<td>10</td>
<td>1124</td>
</tr>
<tr>
<td>27</td>
<td>27</td>
<td>10</td>
<td>1259</td>
</tr>
<tr>
<td>28</td>
<td>28</td>
<td>11</td>
<td>1405</td>
</tr>
<tr>
<td>29</td>
<td>29</td>
<td>11</td>
<td>1562</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>12</td>
<td>1778</td>
</tr>
<tr>
<td>31</td>
<td>31</td>
<td>12</td>
<td>1906</td>
</tr>
<tr>
<td>32</td>
<td>32</td>
<td>12</td>
<td>2097</td>
</tr>
<tr>
<td>33</td>
<td>33</td>
<td>12</td>
<td>2300</td>
</tr>
<tr>
<td>34</td>
<td>34</td>
<td>13</td>
<td>2515</td>
</tr>
<tr>
<td>35</td>
<td>35</td>
<td>13</td>
<td>2742</td>
</tr>
<tr>
<td>36</td>
<td>36</td>
<td>13</td>
<td>2986</td>
</tr>
<tr>
<td>37</td>
<td>37</td>
<td>14</td>
<td>3244</td>
</tr>
<tr>
<td>38</td>
<td>38</td>
<td>14</td>
<td>3512</td>
</tr>
<tr>
<td>39</td>
<td>39</td>
<td>14</td>
<td>3796</td>
</tr>
<tr>
<td>40</td>
<td>40</td>
<td>15</td>
<td>4096</td>
</tr>
<tr>
<td>41</td>
<td>41</td>
<td>15</td>
<td>4426</td>
</tr>
<tr>
<td>42</td>
<td>42</td>
<td>16</td>
<td>4742</td>
</tr>
<tr>
<td>43</td>
<td>43</td>
<td>16</td>
<td>5088</td>
</tr>
<tr>
<td>44</td>
<td>44</td>
<td>17</td>
<td>5414</td>
</tr>
<tr>
<td>45</td>
<td>45</td>
<td>18</td>
<td>5732</td>
</tr>
</tbody>
</table>

M. Bouguer directs to take the length of the shank in inches, and to divide the cube of it by 1150 for the weight. The reason is obvious; because the quotient of the cube of 201 inches, which is the length of an anchor weighing 7000 lb., divided by the weight is 1150, and therefore by the rule of three, this will be a common divisor for the cube of any length, and a single operation will suffice. The same author, in his Traité de Navire, gives the following dimensions of the several parts of an anchor. The two arms generally form the arch of a circle, whose centre is three eighths of the shank from the vertex, or point where it is fixed, to the shank; and each arm is equal to the same length or the radius; so that the two arms together make an arch of 130 degrees; the flukes are half the length of the arms, and their breadth two-fifths of the said length. With respect to the thickness, the circumference at the throat, or vertex of the shank, is generally made about the fifth part of its length, and the small end two-thirds of the throat, the small end of the arms of the flukes, three fourths of the circumference of the shank at the throat. These dimensions should be bigger, when the iron is of a bad quality, especially if cast iron is used instead of forged iron.

THE
# Anchor

**The Most Approved Dimensions and Weight of Anchors.**

<table>
<thead>
<tr>
<th>Weight</th>
<th>Length of Shank</th>
<th>Length of Arms</th>
<th>Breadth of the Palm</th>
<th>Thickness of the Palm</th>
<th>Size of the Trend</th>
<th>Outer Diameter of Small Round</th>
<th>Thickness of the Ring</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
<td>[Table Data]</td>
</tr>
</tbody>
</table>

---

The table above provides the approved dimensions and weight of anchors for various weights. Each row represents a different weight category, with columns detailing the length of the shank, arms, breadth of the palm, thickness of the palm, size of the trend, outer diameter of the small round, and thickness of the ring, along with the corresponding weight values.
The Number of Anchors allowed each Ship in the Royal Navy, with their Weight and Value.

S. stands for Sloop, K. for Cutter.

<table>
<thead>
<tr>
<th>No.</th>
<th>44 and 38 Guns</th>
<th>VALUE</th>
<th>No.</th>
<th>4 and 20 Guns</th>
<th>VALUE</th>
<th>No.</th>
<th>24 and 30 Guns</th>
<th>VALUE</th>
<th>No.</th>
<th>14 Guns 100 Tons</th>
<th>VALUE</th>
<th>No.</th>
<th>12 Guns</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>121</td>
<td>0</td>
<td>4</td>
<td>49</td>
<td>0</td>
<td>18</td>
<td>5</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>17</td>
<td>0</td>
<td>12</td>
<td>17</td>
<td>0</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>18</td>
<td>6</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>18</td>
<td>8</td>
<td>8</td>
<td>247</td>
<td>17</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>9</td>
<td>8</td>
<td>22</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See Murray's Treatise on Ship-building, &c. Elements and Practice of Rigging and Seamanship, \(\text{4to. 1794}\), p. 77—82.

The distinctions of anchors are taken from their use, and the proportions they bear in the ship, where they are employed; for that which in one ship would be called a kedge, or kedge-anchor, in a leafer would be a flat-anchor.

Anchors, kedge, is the smallest, which, by reason of its lightness, is first to flop the ship in kedging a river.

This is what the Dutch sailors call kedge-anchor, the French ancre à tourel. It ought to weigh 500 pounds.

The grapnel is an anchor for a small ship or boat. See Kedge and Grapnel.

Anchor, kedge, is a small anchor fastened to a shackle, wherewith to ride in rivers, and gentle streams, and to flop a tide withal in fair weather.

Anchor, beat, or filthy, is the biggest and strongest, being that which the seamen call their last hope; never to be used but in great extremity.

This is what the Romans call anchora fueri; the Dutch peeg-anker, and jop-anker; the French mainteure-anker, or grande ancre.

The other anchors are called by the name of the first, second, and third anchor; by any of which the ship may ride in any reasonable weather, sea-gate, or tide. These are something bigger than another, and usually when they fail in any forecast, or are near a port, they carry two of these at their bow; in which respect they are also called by the name of first and second bowers.

Anchor, fistnent, called by the Dutch borger-anker, or dangelys-anker, is that ordinarly made use of.

Anchor, croft, called by the Dutch my-anker, or vorty-anker, and by the French ancre d'afforeche, is a middling anchor thrown across or opposite to another. This ought to weigh 1500 pounds, or nearly as much as the second anchor.

Anchor, floating, is a simple machine, which is made to dive beneath the dwell of the sea, and retain the vessel where there may be no other anchorage. It consists of two flat bars of iron, each in length half the breadth of the midship beam of the vessel for which it is used, and riveted together in the middle by an iron faucer-headed bolt, clenched at its point, that they may be swung parallel to each other for easy rowing. At each end of the bars is a hole for a rope, or twister to pass through, which must be hove tight to extend the bars at right angles. To this twister is marked a double or four-fold canvas cloth, so as to be on that side of the iron bars nearest the vessel when used. In each bar are two holes, at equal distances from the centre, and to which holes the ends of two pieces of rope are fastened; the ropes are seized together in the middle to form a crow-foot, having an eye in the centre, which is well fixed with spun-yarn, and to this is bent, when the anchor is used, a cable or hawser, by which it is made to sink and incline in the water. See Plate XI. Ships. In the end of one of the bars is fitted an iron ring to which a buoy is made fast, by a rope about 12 fathoms long, to prevent the anchor from sinking to the bottom. When it is thrown over-board, the cable and a rope made fast to the head of a buoy, are carried away sufficiently to ride the vessel. To get it on board, haul upon the buoy-top, which will bring it to the vessel's surface so as to be easily drawn to the vessel. Have the mizen stay-fall ready to hoist, so as to keep the vessel to the wind, till the anchor is hauled on board.

A floating or swimming anchor will serve to prevent a ship, in a storm, from driving to leeward in deep water. Dr. Franklin suggests that an anchor, effectual for this purpose, ought to have the following properties. It should have a surface so large as being at the end of a hawser in the water, and placed perpendicularly, should hold so much of it, as to bring the ship's head to the wind, in which situation the wind has least power to drive her. It should be capable of being situated below the heave of the sea, but not below the undertow. It should not take up too much room in the ship. It should be easily thrown out, and put into its proper situation. And lastly, it should be easy to take in again, and flow away. Many contrivances have been suggested...
ANCHOR.

suggested for this purpose. One for a large ship might have a stem of wood 25 feet long and four inches square, six four boards, 18, 16, 14, and 12 feet in length, and one foot wide, with a hole in the middle of each, about four inches square, so that it might be occasionally flipped upon the stem at right angles with it; and when these boards are fixed at the distance of four feet from each other, the anchor would have the appearance of the old mathematical instrument called the foreafl. This thrown into the sea, and held by a hawser veered out to some length, would bring a vessel up and prevent her driving, and when taken in it might be flowed away by separating the boards from the stem. Such a swimming anchor would have some good effect, but as it lies on the surface of the sea, it is liable to be hoisted forward by every wave, and then only give so much leave for the ship to drive. Dr. Franklin has proposed two machines for this purpose, which he conceives, would be more effectual and more manageable. The first of these is to be formed, and used in the water on almost the same principle, with those of a paper kite in the air; only that the paper kite rises in the air, this is to defend in the water; and its dimensions must be different for ships of different sizes. The other machine is to be made more in the form of an umbrella. See a particular description of both these machines, with figures, in the Transactions of the American Philosophical Society, vol. ii. p. 311–314.

ANCHOR, to back an, in Sea-language, is to let go a small anchor a-head of a large one, to which it is fattened, that it may partake of the strain, and serve as a check upon it, should it come home. The backing anchor is carried out in a long boat, to the buoy of that which is already down, whole buoy-rope is cast off and bent to the cable or hawser of the backing anchor; when that is done, the boat is rowed further a-head, till the buoy-rope and cable of the backing anchor become tight, when it is let go, the buoy that was taken from the large one being previously bent to it. In this situation, should the large anchor come home, the scope of cable from it to the anchor a-head, participating of the strain communicated to the innermost one, checks its progress, and secures to the vessel a greater security. Where there is more room to drive without danger, and it blows so hard, that the sea runs too high for boats to work, an anchor is backed by cleaving round that part of the cable next the hawse-hole, the end of a cable bent to another anchor on board; this being done, the second anchor is let go under foot; the ship is then suffered to drive, and the cable thus becomes tight from the ring of the anchor last down to its own anchor, which also, by the driving, is now become a cable's length a-head of the former anchor.

ANCHOR, riding at, the state of a vessel moored and fixed by her anchors at some proper station. Where a great number of vessels are moored in the fame port, care is to be taken by the pilots, or those who have the command, that each ship be at a due distance from the rest, to prevent their running foul of each other; also, that they be neither too near, nor too far from land. The proper space between vessels is, from two to three cables' length. See Mooring.

ANCHOR, dropping, or let fall the; otherwise called calling anchor, imports the letting it down into the sea. In some cases it is necessary to drop two anchors opposite to each other, one of them to keep the ship firm against the tide, or flow, the other against the ebb. On approaching an anchorage, the anchor and buoy are got clear, and a range of cable, stretched along the deck, suitable to the depth of water. Care should be taken that nothing is in the way to check the cable, or flop its running out; then, at a proper distance, a turn is taken round the bits with the cable, thus: føril pass the cable from the anchor underneath the cross-piece, then take up a bight of the cable abaft the bits, and throw it over the bit-head. The end of the cable is clenched round the orlop beams in the royal navy, and round the main-mast in the merchant service. It is necessary to have water near the bits to prevent its firing by the friction. STOPPERS and RING-ROPES of all kinds should be ready for use. The flock-lashing being cast off, and nothing but the anchor-hooper and shank-pointer retaining the anchor, men are stationed to stand by them, and let go at the moment when the order is given.

A ship should generally be brought to anchor under an easy fall, such as the three top-fails, jib, or fore topmast day-fall, and sometimes the mizen, according as the vessel has more or less inclination to fall off or come to the wind. An anchor should never be dropped to leeward of the place you mean to bring up in; because that which would often render it necessary to call two anchors at once, for fear of dropping still more to leeward. When the wind is so violent as to bring the anchor home, and make the vessel drive, the cable is veered away; and in veering away, the turns of the flopper laniards are flackened, and a portion of the cable suffered to go out of the hawse, to let the vessel further a-head of her anchor; in which situation the bears left strain on the flukes, and is left liable to drag the anchor; for, the more cable is out, the flukes become deeper buried, and the ship rides in greater safety. In letting go an anchor, care should be taken that the water be not too shallow as to endanger the ship burning herself upon it, and that the anchor be not fouled by the cables getting about the fluke or flack. Nor should the water be too deep, because the cable, when out, should approach as nearly as possible to an horizontal direction. This principle is so true, that three cables laid together on end of each other, are kept bent to the bower anchor, to be used in cases of necessity; and it is found, that one good anchor, with a long range of cable, is a safer anchorage than two anchors with short cables. However, when the ship has not room to drive, and in a dark night, let fall a second anchor under foot, with a range of cable above the deck. At all events, the deep-sea lead should be thrown over the gun-wale, and the line frequently handled, to be certain that the ship does not drive. In hard and rocky bottoms, where anchors cannot have much hold, cables are chafed and cut to pieces. When necessity requires anchoring in such places, a chain should be run up the cable from the ring of the anchor to a certain distance, in order to secure it from danger. When a chain is not to be had, empty casks, well bunged, are good substamines, flung and fastened to the cable at equal distances, to support and keep it from the bottom. When ground is soft and oozy, and anchors will not hold securely, but come home with little wind, it is common to cover the flukes with a broad triangular piece of plank, much larger than the fluke. Sometimes the anchor is backed, or retained, by carrying out the stream, or kedge, a-head of the anchor by which the ship usually rides. In this situation, the bower anchor is combined by the stream, or kedge, in the same manner as the ship is restrained by the bower anchor. In preparing to come to anchor, when the wind is not violent, the top-falls ought always to be clued up at the mast-heads; that is, let go the sheets, and haul the clews and bunt-line close up; take away the top-fails, and take in the slack of the braces as the yard comes down. In this manner you run less risk of splitting and tearing the falls than by any other method. For the various methods of anchoring in different circumstances, see Elements of Rigging, &c. vol. ii. p. 252–256.
Anchor, weighing, imports the act of withdrawing, or recovering the anchor into the vessel, in order to haling. The anchor is ordinarily weighed, or recovered by means of a capstan or windlass.

In large ships which have a main and jeer capstan, and the main is thought too great for the men-ager alone, the jeer is used thus: three or four turns are taken round the jeer capstan with one end, for as to leave that hole clear on which the cable is coming in; and past the other end through the vlog-block, which is lashed round the main-mast on the lower deck. It is then carried forward, and pulled round the rollers in the manner near the hawse-holes; then brought aft, and spliced to the other end with a short splice; and the ends marked down tight. That side of the vlog on which the cable is coming in is fastened to the cable by nippers; and thus the continued efforts of the capstan are conveyed to the cable, until it is hoist. The nippers are clapt on the capstan, from one to two fathoms aboiver; and the vlog is applied to the midship, or inside of the cable. Nippers are clapt on by taking three or four turns round the vlog, four turns round the cable and vlog, and then three or four turns round the cable. This method is very suitable to quick hewing; but when the cable is great, and the cable muddy, the nippers clapt on after this method will not nip sufficiently; in which case recourse is had to the following method: throw hand or afties upon the cable, and take a long dry nipper, which middle, and pass one half aft, racking it in and out round the cable and vlog; then worm its end round the vlog only. After this pass the other half in the same manner forward; but worm its end round the cable only, and let each end of the nipper be held on. The advantages of this method are, that, as the cable of the main or the cable lies forward, and that of the vlog aft, the nipper will be drawn so tight as to effectively hold the cable till something give way. Besides, they can never jamb, for both ends are clear for taking off.

Ships without a jeer capstan heave on their cables by the meffenger, which has an eye spliced in each end; one of which ends is passed with three or four turns round the capstan on the upper deck, and the other end is passed forward round the rollers, at the forepart of the capstan; then brought aft to the other end, and laid thus: several turns are passed through the eyes, crossing each other in the middle, then a half hitch is taken round the parts, and the ends stopped with snub-yarn. What remains of the operation is performed as by the vlog, excepting that the meffenger is applied to the outside of the cable, and when the nippers are insufficient, the meffenger may be hitched by fastening its bight round the cable at the capstan with a rolling hitch, and in the bight round the cable before the hitch.

When the carpenter has been gotten up, and the cable of the second anchor enters the larboard hawse-hole, the operation of getting up this anchor is the same, observing only, that the meffenger must be shifted, and the turns on the capstan reversed; and the men, who before held on the larboard side in the first operation, will hold on the larboard side now; the motion of the capstan is performed the contrary way, and the cable on the larboard side is fixed and hove in.

Most merchant ships and small vessels heave up their anchors by a windlass, round which are taken three turns of the cable, and held on by hand, or by a jigger, thus: the end of the rope which has the take-up pailed round the cable, with a round turn, close to the windlass, the leading part of the rope coming over the sheave, and the rest of the rope being of the same length as the cable, and therefore the cable is pulled up, the windlass being turned, and the anchor, after a certain length of rope is taken up, is received on the capstan, and hauled up.

An anchor is weighed with the long hawse, by taking the anchor out of the hawse, and putting the buoy rope round the davit of the long hawse, and a hawse rope; by which, the anchor is weighed out of the ground. When this is done, the cable is hoisted on-board; the buoy rope, and hawse being secured in the boat, they approach the ship as the cable is hove in, and the anchor cast off and lowered. Small anchors and grapnels are got up by the davit, hauling on the cable or grapple rope by hand.

An anchor is weighed by under-running, when the cable is placed over the davit-head, and it is under-run, till it is nearly a peck, when it is tripped by means of tackles, as in the former case by the buoy rope. This method is troublesome, and is only adopted when the buoy is gone, and a ship cannot get near its anchor for want of water. See Elements of Rigging, &c. vol. ii. p. 326, &c.

Anchor, dragging, is when the anchor gives way, or loses its hold in the ground by the force of the wind, or sea, and the vessel drives from the place.

Anchor, to cast the, is to hook the cat-block to the ring of the anchor, and haul it up close to the cat head. See Stowing of Anchors.

Anchor, clearing the, signifies the getting of the cable off the fluke.

Generally also, when they let fall the anchor, they use this term, to see that neither the buoy rope, nor any other ropes, hang about it.

Anchor, fetching, or bringing home the, denotes the weighing it in the boat, and bringing it aboard the ship.

The anchor is said to come home, when the ship drives away with the tide or sea.—This may happen, either because the anchor is too small for the burden of the ship, or because the ground is soft, and oozy; in such places shoewing is used.

When a ship is compelled to anchor on a lee-shore, or in a narrow road where there is deep water, with an apprehension that the ground is either too hard or too light for good holding ground, drop the common riding bowser, first keeping 25 or 50 fathoms of cable on board, and throw over the lead. If by this means, or by the land, it appears that the anchor drags, let fall the bell bowser, and at the same time give out the rest of the common bowser cable, till the bell bowser gives her a check; after which bend on a sufficient rope or hawser to the common bowser, without the hawse-hole, and pass it through the windlass, making it fall. Then call off the common bowser, and pass the cable end through the hawse-hole, and take a running clinch with it round the bell bowser cable, and let it go. As soon as you think the vessel has dragged her bell bowser cable far enough to strain the common cable on the ground, veer out as much of the bell bowser as may be agreeable; when, however violent the weather, the vessel will never drag them home. A small vessel, which rides hard in a head sea, will be powerfully affted by falling an empty but to the cable, about 10 fathoms from the vessel; for that will first receive the motion of the sea; and check it before it comes to the vessel, so as to cause its rising up to the swell, and effectually aid in refting the violence.
ANCHOR.

Anchors to fish for, is to draw up the flukes of it towards the top of the bow, in order to flow it, after having been casted.

Anchors, gamboling the. See Gambuling.

Anchors, flowing of. In fitting out ships, the anchors are brought in craft near the bows, being most convenient to the hawse-holes, through which the cables pass to be elench'd. The bowser anchors are fir'd catted, which is performed by hooking the hook of the cat-block into the ring of the anchor, and bowling upon the fall that leads into a fluke-block on the fore cable; the cat-falls being previously revetted through the sheaves of the cat-head and cat-block, keeping the hook of the cat-block downwards, and its point inwards. They are then filled, by means of the half-davit, pendant, and tackle, thus: the davit is fir'd stopped in the channel on the side wanted, and supported by guys; the mast-head guy goes over the end of the davit, with an eye; the other end falls round the foremast head, with a round turn and two half hitches. The fore-mast guy goes over the end of the davit, the other end falls round the cat-head, with two half hitches, and securely stopped. The after guy goes over the end of the davit, and makes fast with two half-hitches through an eye bolt in the after part of the fore channel. At the outer end of the davit is hung, by its trap; a large single block, through which is revetted the pendan't, with a large iron hook filched in the lower end, to hook the anchor within the flukes; then to the inner end of the pendan't is made fast a tackle, by thrusting a toggle through an eye in the block-fall; after that has passed through an eye in the pendan't, the other block of the tackle is hooked in an eye-bolt in the fore part of the quarter-deck; the effect of the tackle is communicated to the hook, by means of the pendan't, by men's bowling on the tackle fall. Thus, the flukes of the anchor are raised and placed on the gun-wale, where it is made fast by the shank-painter chain. That the flukes may lie level, the block is bowled upon by the anchor-flock tackle, the double block of which is hooked to a felting, fastened round the block of the anchor under the first hoop, and connected by its fall to a single block, hooked to a felting fastened round the laniard of the main fall: the fall leads in upon the forecastle. The belt bowser is then placed forward near the bows on the forecastle side; the small bowser near the bows on the forecastle side, a little abaft their respective cat-heads; and are secured by their stoppers, from the cat-heads and shank-painters. The stopper has one end clenched round the cat-head; the other end paffes through the ring of the anchor, returns upwards, and leads over a large thumb cleat bolted to the cat-head, and is made fast with several turns, and the end hitched round the headrail and timber-head, on the forecastle side of the cat-head. The shank-painter hangs the shank and fluke of the anchor to the ship's hide out-board; and when lowered, the shank-painter is passed under the inner fluke round the shank of the anchor, and made fast with two or three turns, and the end fotp round timber-heads on the forecastle. With these two bowser anchors ships are generally moored, when lying in a tide's way, or in a fleet.

The fleet and spare anchors are hoisted by runners and tackles, main-fall, and yard tackles, and are lowered securely with block and bill lashings at the after part of the forefrouds, before the chefs-trees on each side of the ship, with one of the arms resting on a chock, bolted to the gunwale; the block being bowled to by the anchor-flock tackle. The fleet-anchor is lowered on the forecastle side, and is the first resource in a gale of wind, after parting with either of the bowser; for which reason, when in port, the fleet cable is kept bent, and the anchor is over the side, supported by the floper and shank-painter, ready for cutting away in case of necessity. The spare anchor is lowered on the forecastle side, and is seldom used, but when one of the others is lost.

The stern anchor is lowered on the spare anchor; and, when used, it is sent in the long boat, or launch, with its cable bent, and let go at any particular spot, either for weathering the ship, when riding by only one bowser, or to affit a ship when in-shore, or to warp her. &c.

The kedge is lowered on the spare anchors, and is frequently used to flop a ship for a tide, in little winds; but, if the wind be too powerful for the kedge, the stern anchor is substituted. The kedge is sometimes used in moderate weather to warp the ship, so as to shift her birth. Elem. of Rigging, &c. p. 287, &c.

Anchors, in Architecture and Sculpture, denotes an ornament in form of an anchor, or arrow's head; frequently carved on the ovolo of the capital, in the Tuscan and Ionic orders, as well as in the bed-moulding of Ionic and Corinthian cornices.

The anchors are usually intermixed with representations of eggs; whence the aleinar or ovolo itself is popularly called egg and anchors.

Anchor, anchor in Literary Matters, the figure of an anchor,
ANCHOR, representing in ancient books; which is of two kinds, superior and inferior. The superior, &c. is where the crooked part is uppermost, used to denote a thing or thrall strongly expressed. The inferior is where the crooked part is at the bottom, to denote a thing poorly or meanly fet forth.

Anchor is also used, in a left proper sense, for any thing that holds another thing fast, to prevent its driving.

In this use, sea-muscles are said to ride at anchor, by a fort of threads the thickness of a large hair, which they emit out of their body, to the number sometimes of a hundred and fifty, which fastening to the flutes and other adjacent bodies, keep them firm in their place. The same is done by the PINNA MARINA.

Anchor, in Heraldry, is the emblem of Hope; and is taken for such in a spiritual, as well as in a temporal sense.

Anchor, a misuse. See Anchor.

Anchor Island, in Geography, an island in Dusky Bay, in New Zealand, visited by Captain Cook in 1773, and by Captain Vancouver in 1791. The harbour was particularly surveyed by the latter navigator, who observes, that it appeared to be perfectly secure, and may be found convenient, when accidents prevent vessels from getting into Facile harbour. It has two entrances; that to the north of the Petrel Islands is a fair, clear, and very deep channel; its general foundings were from 33 to 38 fathoms: in the narrowest part it is about a cable's length wide, and free from danger; as the shores are steep, without any funken rocks or shoals, excepting within the passage close to the south side of large Petrel island, where they are discoverable by the weeds growing upon them, and are quite out of the way of its navigation. The other passage is to the southward of the Petrel Islands; and if a strong northern wind compels any person to make choice of this in preference to Facele harbour, the south-west point of large Petrel Island should be kept close on board, in order to weather the rock that appears above water in the middle of the harbour, and to avoid a funken one, which does not appear, and over which there is no greater depth than 12 feet at low water. Anchor Island harbour, though a very secure port, is not very convenient to get to sea from, on account of its narrow limits, great depth of water, and the above mentioned funken rock in its western entrance. The mountains of Anchor Island, and others round the bay, which, on Vancouver's arrival in November, were perfectly free from snow, were, after a storm which they experienced, covered with it. In a few days the greater part of it disappeared; and it is probable that fresh falls of snow are not frequent, as they do not check the luxuriance of vegetation.

ANCHORAGA, in Entomology, a species of the Fabrici genus BRENTUS, found in India. It is linear, wing-cafellated with yellow, and thorax elongated. Fabricius. This insect is described by Linnaeus as a species of Curculio, under the same specific name as Fabricius has adopted; its description is, head long, wings decd, wing ca elles fatted with yellow, and thorax elongated. Gmelin has removed this species from the Curculio to the Brentus genus in the last edition of the Systhema Nature.

ANCHORAGO is like as a species of CINX which inhabits North America; the general colour is blue, apex and base of the scutellum yellowish, margin of the abdomen yelow with black spots. Fabricius and Gmelin.

ANCHORED, Anchored, in Heraldry. See Anchor.

ANCHOVY, in Ichthyology, a little sea-fish much used by way of sauce or feezoning; it is the Chupa maxilla superiore longiorie of Artedi; and CLUPEA ENCRASICOLUS of Linnaeus. See Encrasicus.

The word anchovy is derived from the Spanish anchovia, or rather from the Italian anchio, which signifies the same.

The anchovy is caught in the months of May, June, and July, on the coasts of Catalonia, Provence, &c. at which season it constantly repairs up the Straits of Gibraltar into the Mediterranean, where they are taken in large quantities. The great fishery is at Gorgona, a small isle west of Leghorn. Collins says, they are also found in plenty on the western coasts of England and Wales. Near a century ago the anchovy was found at the mouth of the river Dee, by Mr. Ray; but since that time it has been found very rarely and only by Mr. Pennant, in 1769, on our coasts.

The filleting for them is chiefly in the night-time; when a light being put on the stern of their little fishing-vessels, the anchovies flock round, and are caught in the nets. But then it is affected to have been found by experience, that anchovies taken thus by fire, are neither so good, so firm, nor so proper for keeping, as those which are taken without fire.

When the fishery is over, they cut off the heads, take out their gall and guts, and then lay them in barrels, and salt them. The common way of eating anchovies is with oil, vinegar, &c. in order to which they are first boned, and the tails, fins, &c. flipped off. Being put on the fire, they dissolve almost in any liquor; or they are made into sauce by mixing them with pepper, &c.

Some also pickle anchovies in small delf, or earthen pots, made on purpose, of two or three pounds weight, more or less, which they cover with platter, to keep them the better. Anchovies should be chosen small, fresh pickled, white on the outside, and red within. They must have a round back, for those which are flat or large are often nothing but Turning.

Besides these qualities, the pickle, on opening the pots or barrels, must be of a good taste, and not have lost its savour.

ANCHOVY pear, in Botany. See Grains.

ANCHUSA, *ων* *ωο* *σο* *σο* *σο* *σο* *σο*, from its supposed conjurating quality, or, as others say, because it stings serpents, in Botany, buglossium of Tournefort and Gartnner, a genus of the pedantia monogynia clafs and order; of the natural order of offerolife, and borragines of Julius; its characters are, that the calyx is a perianthium five-parted, oblong, round, acute, and permanent; the corolla is monopetalous and funnel shaped; tube cylindrical, of the length of the calyx, limb semiquinquefoil, from erect expanding and obsolete; throat clothed with five small scales; convex, prominent, oblong, and converging; the stamina have very short filaments, in the throat of the corolla, anthers oblong, incumbent,
Incumbent; and covered; the *pilibium* has four germs, style filiform, of the length of the stamina, stigmas obtuse and emarginate; no pericarpium, but the calyx, enlarged and erect, contains the seeds in its bofon; the seeds are four, oblongish, obtuse, and gibbous. Martyn enumerates ten, and Gmelin sixteen species. 1. A. officinalis, buglofa, buglofa italic, b. longifolia, b. vulgaris, echium italicum spinosum, officinal, or common alkanet or buglofa, with leaves lanceolate, second spikes imbricate, and ovate bracts. This species is a perennial, and flowers in June and July. The stem is about two feet in height, erect angular, foliose, somewhat branched and paniced, the root is filiform, and externally black; the herb is hairy and rough; the leaves are lanceolate, acute, and slightly decurrent; the upper ones, subovate at the base; the racemes are mostly double, and revolute; the bracts ovate, and not as in the A. angulifolia, linear-lanceolate; the flowers purple and funnel-shaped. It grows wild in Italy, Spain, France, Germany, Sweden, Denmark and Siberia, by road fides and in corn fields. It is found also with us amid rubbiish or in marshes; as on the links near Hartley Pans, in Northumberland. Miller cultivated it in 1749. When it is tender in the Spring, it is boiled and eaten in Upland. The tube of the corolla is melleferous, and the bees are very fond of it. This is not the anchusa, but the bugloss of official writers; but it does not appear that our buglofas possesses the same properties with that of the ancetas; for it has no claim to the title of euphorionnum given to theirs (see Pliny. Hist. Med. lib. 25. c. 8.), as it has no exhilarating quality, although its flowers have been long referred to the class of the four corollas. This plant, says Dr. Lewis (Mat. Med. p. 167.) appears to be nearly similar to borage, in its medicinal qualities as well as in its external form. The principal difference seems to consist in the leaves being somewhat less juicy, and the roots more mucilaginous. The roots, leaves, and flowers are ranked among the articles of the materia medica, but they are very seldom used. In China this plant is said to be much esteemed for gently promoting the eruption in the small pox. 2. A. angulifolia, borage of Zanz. hirt. buglofa angulifolium of Allion. and Mor. buglofa folis lin- genformibus apseris, &c. of Haller, echii facies buglofa of Lob.; narrow-leaved alkanet, with racemes almost naked in pairs. Haller thinks that this is not a distinct species from the first. In gardens it grows to the height of two feet, but in its wild state does not attain more than a foot. The leaves are narrow, and not so hairy as the first; the spikes of flowers are double, and have no leaves; the flowers are small, and of a red colour; the roots will continue three or four years in poor land. It is found wild in Italy, Ger- many, and Switzerland: flowers in July and August by way fides, and in the borders of ploughed lands; cultivated here by Miller in 1755. Boerhaave recommended the juice of the plant as a remedy for the flux and melancholy. 3. A. Halenia buglofa of Haller, Ray, and Bouthin, Italian alkanet, with leaves lucid and frigidae, racemes two-parted, two-leaved, flowers somewhat unequal, bearded at the throat. This differs from the first species in size, in that the flowers are equal and funnel-shaped; whereas in this they are smaller-shaped; they are much more imbricate in that, the segments of the calyx being broader and shorter; those of the corolla ovate; with the scales of the throat only slightly tomentose. 4. A. undulata, waved A. frigide, leaves linear toothed, pedicels less than the bracts, fruit-bearing calyces inflated. This plant is three feet high, with many strong lateral branches, produced from the main stem near the ground; the leaves are hirsut, rough, fix or seven inches long, and about half an inch round at the top, closely embracing the branches at the base, and two inches broad, indented and waved on their edges, the upper surface beft with hairs, and rough to the touch: spikes of flowers axillary, a foot or more in length, reflex: corollas fine blue; the root decays after the seeds are perfected, though sometimes, in gravel, or the joints of stone walls, it will live three or four years; but such plants are seldom more than a foot high, and have small narrow leaves, so that they appear like a different species. It is a native of Spain and Portugal, and Gmelin found it in Siberia; cultivated in 1739 by Mr. Miller. 5. A. tinctoria, buglofa tinctorum of Allion. Dyer's A. downy, leaves lanceolate, obtuse, and stamens shorter than the corollas. This species is perennial, and resembles the first in its leaves and branches, only that they are more woolly; the root is red. It much resembles the seventh species, and is entirely covered with a white down. It grows about Montpellier in France, in Silefia, Spain, and Italy; and was cultivated here in 1683 by Mr. James Sutherland. The roots of this plant, when in perfection, are externally of a deep purplish red colour. The red cortical part, separated from the whitish woody pith, imparts a fine deep red to oils, wax, and all unctuous substantias and also to rectified spirit of wine; but to water it gives only a dull brownish hue. The spirituous tincture, when infusitated to the consistence of an extract, changes its fine red to a dark brown. The root has little or no smell, and scarcely any taste; extracts made from it, by water and by spirit, are bitterish and roughish, but in too low a degree to be regarded as medicines, though they were formerly in repute as aperient, for dissolving congealed blood, refraining diarrhreas, and drying invertebrates ulcers. Its chief use at present is for colouring oils, plasters, lip-salves, &c. which receive a fine deep red from one-fortieth of their weight of the root. For this purpose the coniferous unctuous materials are to be liquefied in the heat of a water-bath, the powdered anchusa added, the mixture stirred now and then till sufficiently coloured, and then strained through a linen cloth. The roots of buglofas boiled in a decoction of Brasil wood are sometimes substituted for those of alkanet; but these will not dye oils red. Lewis and Murray, 6. A. virginica, lithospermum virginianum of Morfon and Ray, virginian A. with flowers scattered, and item smooth. This is perennial, and a native of North America, where it grows in the woods, covering the earth with bright yellow flowers, and known by the name of *psecon*. 7. C. lanata, woolly A. with villose leaves, hairy calyces, and stamens longer than the corollas. This species was found by Brender near Al- giers, and is very like the fifth. 8. A. latifolium, buglofa latifolium sempervirens of Dillon in Ray's Synop. borago sempervirens of Gerard, evergreen A. with ovate leaves, and two-leaved and capitated peduncles. The root is thick, and externally black; the herb stem evergreen and hispid; the items angular round, and foliose; the leaves alternate and ovate; the peduncles axillary, foliary, capitated, and two-leaved at the apex; the limb of the corolla blue, rather flarer-shaped than funnel-shaped, segments rounded, tube at the base four-cornered; the germ imbedded in a hollow glandular receptacle; seeds one or two, generally abortive, rough, and very hard. In habit and character this plant approaches to myosotis. It is found wild in Spain and Italy. With us it has been found by road-sides, among rubbiish, and in the joints of old walls, in several places about Norwich, at Haddicote in Suffolk, near Birmingham, Worcester, and Sidmouth, near Rochester and London, and in the ruins of Maes Glas monastery in Flintshire. It is perennial, and flowers in May and June. Withering's Bot. Arr. vol. ii. p. 227. Smith's Flor. Brit. vol. i. p. 215. 9. A. barreria, buglofa barrellum of Allion.
ANCHYLOBLEPHARON. See Anchylolophus. Anchylolepharon. See Anchylolophus.

ANCHYLOPSIS, in Surgery. (From αγκύλος, curvo) Anchyl, Anchyl, Anchylia, Anchylia. Immobility of the joints. This term is used when any joint of the body becomes, whether from external or internal causes, stiff and inflexible. It is divided into the true and the spurious anchylitis. By the true anchylitis is understood that disease, in which the bones of the joints form such a synostosis with each other, that they appear to consist of a single piece. In the spurious anchylitis, the motion between two bones at the joint is in some degree, though not entirely, lost.

The mobility of a joint may be more or less interrupted by various causes, amongst which are different diaphyses of the bones, particularly a tumefaction of their extremities, caries, fracture, near to or within the joint, dislocation, twining, and crumhing of the bone; as also several kinds of tumors, such as fleshly excrescences, aneurisms, hydropalamic accumulations, &c. The muscles may also give rise to the stiffness of a joint, when the flexors contract so strongly that the extensors lose their force, in which case a contraction, as it is termed, is produced. This generally arises from internal causes; sometimes, however, from external, or diaphyses that have attacked the joints, in which case the ligaments and other surrounding parts of the joint are likewise affected. To the internal causes belong the swelling of the bones, the rickets, a metallic deposition of corrupted fluids in the joints, a deficiency of the synovia or mucus which lubricates the joints, a continued pain, under which the patient finds relief from a certain position of the limb, in which he consequently keeps it for a long time, the colica fatumia, gout, chronic rheumatism, and paralysis. Some indeed have alleged, as causes of impeded motion in joints, the inflammation and accumulation of the mucus which lubricates their cavities; but even though we should admit that this synovial mucus might become preternaturally thick by the limb being left too long without motion, it cannot, however, be proved that its inflammation may increase to such a degree, as entirely to prevent the motion of the joint, as even the thickest mucus is still able to lubricate smooth surfaces, and facilitate the motion of one upon the other. On the contrary, a too long continued and violent exertion and motion of the body, as well as long continued repose, may deprive the fibres of their natural flexibility, as in both cases more earthly particles are deposited, and the fibres themselves rendered more dense, in consequence of which the ligaments also refit the extension and flexion of the joint.

The true anchylophus may easily be known by the impossibility of moving the bones in their joints, by the insurmountable difficulty which opposes their flexion or extension; but we may also with equal ease discover the false anchylophus by both seeing and feeling that the part still retains some power of motion at the joint. The prognosis depends upon the knowledge of the true cause of the disease, according to which the cure is either perfect or imperfect. By the imperfect cure we can only alleviate the inconveniences of the true anchylitis. Namely, the incurable synostosis of the bones; so that the perfect cure can only be successfully accomplished in the spurious anchylitis.

In general the method of cure is to be determined according to the different causes which have given rise to the incurvation and impeded motion of the joint. When the proximate cause consists in a contraction, we must endeavour to discover and remove the cause by which the contraction has been produced, and afterwards afflit the cure by means of external applications; for frequently, even though the internal causes may have been removed, the contraction of the muscles still remains. The contraction may be discovered by the tendons of the muscles, which keep the limb bent or extended, being very much stretched. Moreover, all that has been said concerning the internal causes and diseases, with a view to the cure of the immobility of the joints, applies also to the external causes and diseases; such as white swellings, suppuration of the joints, preternatural excrescences in the joints, cauries, dryness of the joints, burns, cicatrization, &c.

When now the internal or external causes have been removed, the surgeon must apply the proper remedies for restoring the motion of the joint itself. These remedies consist in endeavouring to soften the muscles, tendons, adipo membranes and ligaments, afterwards slowly and gradually to extend them, and progressive efforts to move them by degrees to their former condition; for which, however, a long space of time is generally required. In an anchylitis arising from a fracture of the bones of the joint, besides prescribing a light diet, we should rub the disfigured parts about the joint with flannel, in order to attenuate the fluids, and increase the effect of the remedies peculiarly adapted for the cure of the disease. For, in order to restore the mobility, it is particularly necessary that the muscles, ligaments, skin, and cellular texture should be softened and relaxed by emollient remedies, which should be employed very liberally, and persisted in for a great length of time. Contracted muscles should be rubbed, throughout their whole extent, with emollient applications, for the space of half an hour or more at a time, and three times every day.

The
The limb itself should constantly be kept moistened with the same applications, by wrapping it, every time after it has been rubbed, in flannel dipped in the emollient fluid.

While we are applying the frictions, we should endeavour to extend the limb as much as the patient can bear, slowly, but with perseverance.

When the contraction is situated in the knee-joint, we may make use of a machine, with the view of preventing the shortening of the muscles. The extension should by no means be performed too quickly, as pain and inflammation might easily be the consequence. Mr. B. Bell, in his System of Surgery, has recommended a useful machine for this purpose; Mr. Koehler (Anleitung zum Verband, &c. Leipzig, 1795, S. p. 168.) recommends a bench, and Mr. Trampel (Archivums dien Werke die Wundartzweiflichtswissenschaft. Bd. i. St. 1. p. 23. Fig. 1.) a machine similar to that of Mr. Koehler.

Amongst the emollient remedies adapted for the cure of this disease are particularly to be enumerated all sorts of animal oil, such as the fat of ducks, geese, and hogs; the leam of warm water; warm baths; fresh expressed oils, the Unkt. althea. Some recommend also an ointment made of the dripping of hares, turpentine, and okum oil; also baths and embrocations mixed with brandy; and finally, the vapour bath. When the substance of the fibres has become too dense, repeated embrocations, with a warm solution of sal ammoniac in water, are particularly useful. When these remedies are not found adequate to the removal of the affections, we may employ more powerful ones, such as embrocations with the brine of herrings with vinegar, vitriol, and alum; also with a solution of the balsam von exter. the empl. de gabanbo & de ammonico; especially the gumm. ammonico. boiled in wine vinegar to the confidence of a plaiter, spread thick upon leather, and applied to the diseased part.

Previously to every use of the vapour-bath, we may rub the part with a solution of Venice soap, or alo with ol. major, ol. tartari, etc., or some other similar oil. In proportion to the effects which it produces on the patient, the vapour bath may be applied for the space of half an hour or an hour, twice or thrice a day, or only every other day. The fluid employed for forming the vapour bath may consist, of warm oil, diffused in it, sal ammoniac, balsamum vitse externum, &c. In the intervals, the embrocations are to be applied. Fumigations, with volatile substances, have also been employed with great advantage.

Where the affections of the joint owes its origin to a dilation that has been reduced, and where the soft parts have been bruised, repeated blood-letting, with emollient and diffusent poultices should be used, till the tumor and swelling have disappeared, after which the parts may gradually be moved. But when the dilation has not been reduced we must attend to the tumor, hardnefs, and inflammation, which are to be treated with general remedies. Where these obstructions do not stand in our way, we may let blood, and attempt the reduction, provided the disorder is not of too long standing.

When symptoms of a deficiency of the synovia are observed, or the blood is inadequate to its secretion in the glands of the joints; we must not only put our patient upon a proper regimen, but also employ general remedies adapted to the complaint; such as gentle evacuations, moderate frictions to the diseased parts, baths with decoctions of emollient herbs, or alo emollient poultices, to which we may add a quantity of black soap. When, on the contrary, there is too great an abundance of synovia, particularly when the diseased parts are affected with pain and swelling, we must let blood, and before using diffusent poultices or baths, rub the diseased parts with warm flannel, and, at the same time, gently move the joint. But should this not be sufficient, we may mix stimulating herbs with the poultices, and add to the baths a quantity of lime-water, kitchen-felt, or sal ammoniac.

Distortion of the limbs is sometimes a congenital disease, which most frequently occurs in the foot. See VARI & VALEI.

ANC, in Greek Αντωνιόνες, anclet-elbowed, from αντς, a cowl, and οιιος, an elbow, a name given by Hippocrates to those who, from lifting the head of the ας lumern into the ατη, have an arm shorter and smaller than it ought to be, and the calf or tibia of a weak.; whereas they are called by some without, which fully expresses the Greek word, or barely anc. The disorder that gives occasion for the name, happens either in the womb, where the ας lumern suffers a luxation, from too much moisture; or in tender years by means of an object deeply seated about the head of the ας lumern. See DISLOCATION and LUXATION.

ANCIAIO in Geography, a small town of Portugal, in Betra, containing one parish, and about 1200 inhabitants.

ANCIAIUS, in Ancient Geography, a town of Greece in Ephesus, which was an episcopal see. It is thought to have been the same with the Oncheirvia of Plutarch.

ANCIENT, or ANTIENT, in its usual sense, denotes a thing which existed in times long ago; and thus it is opposed to modern.

We say ancient nations, ancient architecture, sculpture, philosophy, &c. ancient manners, ceremonies, poets, physicians, and the like.

ANCIENT, in Church Discipline. See ELDERS.

ANCIENT, in Ins of Court, imports a distinction of a certain degree. Thus, the society of Gray's Inn consists of benchers, ancients, barristers, and students under the bar: here the ancients are the elder barristers.

In the ins of chancery there are only ancients, and students, or clerks; and among the ancients one is yearly the principal, or treasurer. In the Middle Temple ancients are such as have gone through, or are past their reading.

ANCIENT is sometimes also used, in a military sense, for the colours, or ensign.

ANCIENT, or ANSEMT, in the Naval armament, a small flag or dreamer set upon the stern of a ship, or on a tent, similar to the guidon used at funerals, which was called an ensign.

ANCIENT demeque or domain, in Law, is a tenure, whereby all manors belonging to the crown in William the Conqueror's and St. Edward's time were held.

The number of names of all manors, after a survey made of them, were entered in a book called "Domedday Book," yet remaining in the Exchequer; so that such lands as by that book appeared to have belonged to the crown at that time, and are contained under the title "terra regis," are called ancient demeine. The tenants in ancient demeine are of two sorts: one who hold their lands freely by charter; the other by copy of court-roll, or by the verge, at the will of the lord, according to the custom of the manor. The advantages of this tenure are, 1. That tenants holding by charter cannot be rightfully impleaded out of their manor; and when they are, they may abate the writ by pleading the tenure. 2. They are free from toll for all things relating to their livelihood and husbandry; nor can be impammed on any inquest. These tenants held originally by ploughing the king's lands, plashing his hedges, and the like service, for the maintenance of his household; and it was on this account that such liberties were given them, for which they may
ANCILLA, in Entomology, a species of *Phalena*, of the Bombyx tribe. The wings are brown, with three transparent white spots on the anterior pair; abdomen yellow, with a black streak. Gmel. This is the same insect as Fabricius describes under the specific name *obscera*, *spec. inf.* and is likewise the Nocta *Ancilla* of Wien. Schmetterl. It inhabits Germany, according to Gmelin, and feeds on the lichen paricinum; Fabricius notes it in the cabinet of Dr. Allioni as a native of Italy. In some specimens the posterior wings are without spots; in others, yellow, with a brown margin and curved mark.

This species must not be confounded with the *Phalena Ancilla* of Cranmer, Pap. t. 149, which is an Indian insect, and the variety (v) of the Nocta *Fulonica* of Gmelin, and *Nocta Dioscorea* of Fabricius.

**ANCILLON, DAVID**, in Biography, a French Protestant divine, was born at Metz in 1617. In early life he applied to his studies with such diligence, that it was necessary, on some occasions, to restrain, what his biographer calls, the excess and intemperance of his studious disposition. From the age of 10 years he pursued his course of learning at the college of the Jesuits at Metz; and at this time many attempts were made by the directors of the institution to gain him over to their religion and party; but all their efforts were ineffectual. Having determined to devote his life to the profession of divinity, he removed in 1632 to Geneva; and, during a residence of seven or eight years in that place, he acquired an extensive and accurate knowledge of philology and theology. In 1641 he underwent an examination before the Synod of Charenton; and so far approved himself by the specimens which he exhibited of his talents, learning, and modesty, that he was appointed to the church of Meaux, which was one of the most considerable benefices then vacant among the reformed. Here he exercised his ministry with very great satisfaction both to himself and to those with whom he was connected for 12 years; and such was his reputation, that he was admired and esteemed by persons of all persuasions, both Catholic and Protestant. His popularity as a preacher recommended him to the attention of a wealthy person, who had one daughter, to whom he was affectionately attached, and he was induced by the respect which he entertained for him to declare to some of his friends, that if Ancillon would come and demand her of him in marriage, he would be happy in admitting him to an alliance in his family. In process of time a negociation commenced, and it terminated in 1649 in an union, which was the source of much domestic felicity. Four years after his marriage, Ancillon availed himself of a vacant benefice in his native city to remove thither. Here he uniformly maintained the same character, and purified his studies with unabating ardour. The fortune he had acquired by marriage enabled him to indulge his favourite propensity, which was that of the purchase of books; so that his library became both large and curious; and as it was one of the few private collections in France, it was visited as an object of curiosity by travellers who passed through Metz. Ancillon purchased the best editions of books, for which he gave these good reasons: that the left the eye was fatigued in reading a book, the more is the mind at liberty to judge of it; and that as the beauties and faults of a work are more clearly seen in print than in manuscript, so the fame beauties and faults are more clearly seen when it is printed on good paper and in a fair character, than when the paper and type are bad. Ancillon was no less indulgent in the use of the books which he read for amusement or for general information; and such others as were useful to him in his profession. The former he read but once, curiously, according to the Latin proverb, "suete canis ad Nilum bibere et fugiere," like the dog that drinks at the stream as it runs; the latter he read over several times with attention and care, and omitted no means of impressing their contents correctly upon his memory. He marked his books with a pen as he read them, and placed in the margin references to other authors. Ancillon, though he was uncommonly industrious in his pursuit of knowledge, did not allow his fondness for study to occasion a neglect of the duties of his profession; but in order to reconcile the one with the other, he addicted himself in too great a degree to a recluse and sedentary life; and he could never be prevailed upon more than three or four times to visit a country-house which he had near the city. He scarcely ever left his own habitation, unless to go to church, or to perform the functions of his office; but he never neglected the services of religion, nor disregarded the calls of humanity. He discharged all the important and useful duties of a Christian minister without ostentation, without ambition, and without avarice.

After having enjoyed the sweets of literary retirement for upwards of 40 years, and occupying the station of minister to the Protestant church at Metz, with great reputation and usefulness, for 22 years, Ancillon's repose was disturbed by the demon of persecution. Upon the revocation of the édit of Nantes, in 1685, this excellent person was reduced to the necessity of abandoning his library, his church, his friends, and his country, and of seeking refuge, through the phrenzy of religious bigotry, among strangers. He fled into Germany; and his library, a few books which he had concealed excepted, fell in small parcels, and for very inadequate payments, into the hands of the monks and clergy of Metz, and the adjacent towns. Thus deprived of the fruits of an attention bestowed on his collection of books for 44 years, and of the pleasure and benefit which he derived from them, he might well exclaim:

"Impius haec tam culta novalia miles habebat, Barbaras habebat."

VIRG. Eclog. 1. v. 71.

"Did we for these barbarians plant or sow?"

On these, on these our happy fields below?"

In the city of Hanau, Ancillon found an asylum; and here he had an opportunity of exercising his ministry, at the request of the French church, with great acceptance, till the jealousy of the other two ministers of the church, excited by his popularity, rendered his situation extremely uneasy, and induced him to withdraw from Hanau, and to retire to Frankfurt. With a view to the settlement of his family, he soon afterwards removed to Berlin, where he was favourably received by the elector of Brandenburg, and obtained the charge
charge of a French church. In this situation he remained, enjoying the comfort of seeing his children and other relations well established, and supporting the character, which he had maintained through life, of a learned scholar, an excellent minister, and in all respects a truly worthy man, till death finished his course in the year 1672. His literary works are few. In 1657 he published, at Sedan, in 4to. A Relation of the Controversy concerning Traditions, held between the Author and M. Bedacres, a Doctor of the Sorbonne." At Hanau he printed in 1666, "An Apology for Luther, Zuinglius, Calvin, and Beza." He also wrote, "The Life of William Farel, or the Idea of a faithful Minister of Christ," of which only a spurious copy was printed in Holland. Some of his learned conversations were published by his son in a miscellany, mentioned in the next article. Gen. Diet.

Ancillon, Charles, an advocate, the son of the subject of the last article, was born at Metz in 1629, and was a learned and zealous defender of the Protestant cause. After the revocation of the edict of Nantes, he was commissioned by the reformed at Metz to solicit at court an exemption in their favour; but he only succeeded in obtaining a mitigation of the treat of his persecuted brethren. At Berlin, whither he removed, he was appointed inspector of the tribunal of justice, instituted for the French in Prussia, historiographer to the king, and superintendent of the French school in this city he died in 1715, at the age of 56 years. He wrote, in French, "An History of the Establishment of the French Refugees in the States of Brandenburg," printed in 8vo. at Berlin, in 1690; "A critical Miscellany of Literature, collected from the Conversations of his father, Minister of Metz," 3 vols. 8vo. 1698; "The Life of Soliman II.," 4to. 1760; "A Treatise on Eu nuchs," 4to. 1767; "Memoirs of many literary Characters," 12mo. 1709. Gen. Diet.

Anci, in Geography, a town of France, in the department of the Higher Pyrenees, and chief place of a canton in the district of La Barthe de Neste, five leagues south-west of Bagneres.

Ancnabris, in the Religion of the ancients Romans, denoted a table in temples, wherein the priests cut their portion of the sacrifices and oblations.

Anclace, in Ancient Geography, a people placed by Ptolemy in Asia Minor.

Anci, in Geography, a town of Germany, in the Circle of Upper Saxony and duchy of Pomerania, situated on the river Peene, in a fertile country. On one side of it are swamps and meadows, with a fine dyke, a quarter of a German mile in length, and on the other deep moats and walls. It has two parishes, churches, and a good trade both by land and water, and has driven under the Prussian government. It is the capital of the circle to which it gives name, and the territory belonging to the town is near three German miles long, and contains 17 villages and two farms. It is eight leagues south of Gripswald, and 14 north west of Stettin. N. lat. 52°. E. long. 14° 9'.

Ancle, See Ancile.

Anclothe Point, in Geography, on the peninsula of California, coast of the North Pacific Ocean, lies in N. lat. 30°; and W. long. 116°, southward from the town of Vel i ceta, and north-east from the small island of Guadaloupe.

Ancobaritis, in Ancient Geography, a country of Melopotamia, known to Ptolemy, and placed by Strabo in Arabia Deserta.

Ancober, Ancobar, Cobere, or Gold River, in Geography, a river of Africa, which runs into the Atlantic, between the Gold Coast and the country of Axim. At its mouth is a good harbour. N. lat. 4° 48'. W. long. 40'.

Ancober, of Ancobar, a town and district of the Gold Coast, extending from north to south about 18 or 20 leagues along the river of this name. In this small kingdom there are women who never marry, but devote themselves, by certain ceremonies of an infamous kind, to public prostitution.

Ancocus Creek, in Geography, lies in New Jersey, being a water of the Delaware, six miles south-west from Burlington. It is navigable 56 miles, and considerable quantities of lumber are exported from it.

Ancoe, a small town of South America, three leagues from the city of Guanama.

Anc on, in Anatomy, denotes the curvature or flexure of the arm, wherein we rest in leaning.

This is otherwise called ulnacanum.

Anc on, in Architecture, is used to denote the corners or quoins of walls, crofs beams, or rafters.

Anc on is also used in the Ancient Architecture, to denote the two parts or branches of a square, which meet in an angle resembling the letter L.

Anc on is also used by Vitruvius, to denote a kind of mensa, or tables before doors, bent somewhat after the manner of vultures, so as to reemblce the letter S.

It flowers in May and June. 3. A. latifolium, (agrimonia decumbens of Linn. Suppl.) hairy A. "with fermen demerged, ducules pace-forum, spikes elongate, leaflets oblong, covered, and villo.so, and fruits armed on every side." The calyx closes as the seed ripens, and thickens into an orate globose, sub-stellated, white-tomentose bark, armed every way with short bristles, thickened outwardly, and having four recurved barbed little prickles. The seed single, ovate-globose, produced at top into a boss, smooth and pale; covered with a thin membranaceous skin, and on the outside of that with a coriaceous, hard, thick, integument, resembling a shell. Martyn's Miller.

Ancizan, in Geography, a town of France, in the department of the Higher Pyrenees, and chief place of a canton in the district of La Barthe de Neste, five leagues south-west of Bagneres.

Ancolnabris, in the Religion of the ancients Romans, denoted a table in temples, wherein the priests cut their portion of the sacrifices and oblations.

Anclace, in Ancient Geography, a people placed by Ptolemy in Asia Minor.

Anci, in Geography, a town of Germany, in the Circle of Upper Saxony and duchy of Pomerania, situated on the river Peene, in a fertile country. On one side of it are swamps and meadows, with a fine dyke, a quarter of a German mile in length, and on the other deep moats and walls. It has two parishes, churches, and a good trade both by land and water, and has driven under the Prussian government. It is the capital of the circle to which it gives name, and the territory belonging to the town is near three German miles long, and contains 17 villages and two farms. It is eight leagues south of Gripswald, and 14 north west of Stettin. N. lat. 52°. E. long. 14° 9'.

Ancle, See Ancile.

Anclothe Point, in Geography, on the peninsula of California, coast of the North Pacific Ocean, lies in N. lat. 30°; and W. long. 116°, southward from the town of Vel i ceta, and north-east from the small island of Guadaloupe.

Ancobaritis, in Ancient Geography, a country of Melopotamia, known to Ptolemy, and placed by Strabo in Arabia Deserta.

Ancober, Ancobar, Cobere, or Gold River, in Geography, a river of Africa, which runs into the Atlantic, between the Gold Coast and the country of Axim. At its mouth is a good harbour. N. lat. 4° 48'. W. long. 40'.

Ancober, of Ancobar, a town and district of the Gold Coast, extending from north to south about 18 or 20 leagues along the river of this name. In this small kingdom there are women who never marry, but devote themselves, by certain ceremonies of an infamous kind, to public prostitution.

Ancocus Creek, in Geography, lies in New Jersey, being a water of the Delaware, six miles south-west from Burlington. It is navigable 56 miles, and considerable quantities of lumber are exported from it.

Ancoe, a small town of South America, three leagues from the city of Guanama.

Anc on, in Anatomy, denotes the curvature or flexure of the arm, wherein we rest in leaning.

This is otherwise called ulnacanum.

Anc on, in Architecture, is used to denote the corners or quoins of walls, crofs beams, or rafters.

Anc on is also used in the Ancient Architecture, to denote the two parts or branches of a square, which meet in an angle resembling the letter L.

Anc on is also used by Vitruvius, to denote a kind of mensa, or tables before doors, bent somewhat after the manner of vultures, so as to reemblce the letter S.
ANCRA

In this sense answer amount to the same with what the Greeks call wopbolw, protopside.

Ancor is particularly applied in the Ancient Architecture to the brackets, or shouldering-pieces, called consoles and corbels by the moderns.

Ancor was also used by the Carthaginians, to denote a dark pillar or dungeon. Strabo mentions one of this kind, in which Gelmer used to put all who displeased him; from which Bellerophon delivered many merchants of the call, whom the tyrant intended to put death.

Ancor is also applied to the angles or flexures of rivers: sometimes also to the tops of mountains.

Ancor, in Ancient Geography, a town of the Lucus-Syrians, in Cappadocia. M. d'Anville places it upon the Euxine Sea, between Amusius to the west, and the Promontorium Heracleum to the north-east.

Ancona, a town of Italy, in Picenium to the north, situate on a small island, which joins the promontory of Camerium to the continent. As Gray notes it is a small island, its name is probably deduced from its situation. Some lay that it was built by the Cynurians, from which they fled from the tyranny of Dionysius, towards the year 429 B.C., before Christ. It was famous for the beauty of its dyeing, and the purple of Ancona was only inferior in elegance to that of Aegina. It became a Roman colony probably about the war of Tarquin, about the year of Rome 455, when the consul P. Sempronius conquered the Picentines, and extended the boundaries of the Roman possessions as far as Aegina. The emperor Trajan constructed a good port, in commemoration of which a triumphant arch of fine veined marbel was erected on it. The mole, which fills makes a beautiful appearance. Ancona was insufficiently beseiged by the Goths under Totila, A.D. 551; but it was taken by Ariulf, king of the Lombards, and duke of Spoleto, in 592. In 839 it was taken and pillaged by the Saracens. It is now the capital of the country of the same name; a free port, with a convenient harbour, securer by a strong mole, which are generally mounted 8 or 10 guns; and its chief exports are grain, wool, and silk. It is the seat of a bishop, immediately under the pope. The Jews are very numerous in Ancona; however they live in a particular quarter of the town, and are obliged, by way of distinction, to wear a bit of red cloth in their hats. The exchange in Ancona has a beautiful front, and over the entrance an equellinarian statue; and within it is a lofty spacious apartment, in which, among other statues, are those of Faith, Hope, Charity, and Religion. The inhabitants of Ancona, says Keynes, (vol. iii. p. 289,) especially the female sex, so far excel those of the other parts of Italy, in shape and complexion, that they seem to be a different race of mankind. In the shallows near Monte Comoro, or Conaro, about 10 Italian miles from Ancona, there is a singular species of tesselous fish, calledballani, or ballari, which are found alive in large foms. The skin of this fish is thin, rough, and of an oblong figure, resembling a date; and hence they are called Dattili del Mare, or date-fishes. These ballari are laid within the mole, and come to perfection. In feeding for them, such fishes are selected as have the surface full of little holes, which indicate that these fishes have minguated themselves into them. When the fish in which the spawn has penetrated are taken, several of these fishes are found in them. Both the fish and its juice are so luminous in the dark, that one may see to feed by the light they afford; and even the water in which this fish has been squeezed, when put in a glass, emits an effulgence which lasts from eight to twelve hours. Great quantities of the ballari are brought to Rome, where they are reckoned "beccome di cardinale," or, dainties fit for a cardinal. Oysters are preferred here alive in sea-water for several years; but the oysters of Ancona, though large, are flabby and unpalatable. Here is also a kind of sea fowl fish, called nocchia, resembling our looher, but of a more delicate flavour. In the harbour of Ancona there is also a fish called the sepi, which has a long white shell on its head: these shells are often found along the shore, and, when pulverized, are used for cleaning plate. Ancona is 107 miles north-west of Rome. N. lat. 43° 37'. E. long. 13° 30'.

Ancona, Magnifico, a province of Italy, in the pope's territories. It is bounded on the north and east by the Adriatic, on the south by Umbria and Abruzzo Ultra, and on the west by the duchy of Urbino. The air is indifferent, but the soil is fertile, particularly in hemp and flax, and there is plenty of wax and honey. The province is about 22 leagues in length, and 16 in breadth; and along the coasts towers are erected, and furnished with cannon, in order to keep off the corsairs. The chief rivers are the Ruftele, Afpido, Tasto, Tono, Ragusia, and Tronto. The principal towns are Ancona, Acri, Camerino, Perno, Jef., Loreto, Macerata, Montello, Oliva, &c.

Anconus, or Anconius Marcellus, in Anatomy, arises tenuous from the back part of the external cowl of the ribs; it becomes fleshy, and terminates by a slight flexure attached to the outer and back part of the ulna. Its use is to afford in extending the forearm. Formerly all the extensor muscles of the elbow were called anconer, and that which now exclusively bears the title was the anconer quadratus, or minor.

Ancony, See Iron, Manufacture of.

Anchorarius, a town of Africa, in the Hither Mauritania. According to Pliny the wood which grew upon it had the smell of citron, and was called citrus.

Ancourt, Florent Carton D', in Biography, an eminent actor and comic writer, was born at Fontainebleau, in 1661, and educated at the Jesuits' college in Paris. Defined for the law, he became an advocate at the age of 17 years; but falling in love with an actress, whom he married in 1699, he then devoted himself to the stage as an actor; he excelled in the graver comic parts; and, as a dramatic writer, his particular line was humorous farce. He was distinguished by his exhibition of rustic characters; his dialogue, though filled with the jargon of the peafantry, was gay and lively, and abounded with smart fables; and his plots generally consisted of little incidents, contrived to ridicule the follies of the day. His pieces were popular, and attracted numerous auditors. His prose was much better than his verse. His company was much fought by the gay and great, and Louis XIV. was fond of him. In 1718 he quitted the theatre, and retired to an estate in Berry, where he employed himself in those religious duties, pertaining to his spiritual safety and welfare, with which, according to the maxims of the Roman Catholic religion, the profession of a player is incompatible. He died in 1726, and left two married dochughters. His works were printed in 1739, in nine volumes. A selection of the best of them has been published in three volumes. Gen. Dict.

Ancres, in Geography, a small town in France, in the province of Picardy, upon a small river of the same name, five leagues north-east of Amiens. N. lat. 46° 59'. E. long. 2° 45'.

Ancree, Ancrade, or Anchored, in Heraldry, is said of a cross whose extremities turn back like the flukes of an anchor, or terminate like the cross patonce, but in a sharper turn. Care must be taken not to mistake the cross ancre for the cross moline, which is of the same form, and by some of the old heralds called a cross ancre, or anchored.

Ancrina,
ANC

ANCRINA, in Ancient Geography, a town of Sicily, according to Ptolemy, at some distance from the sea coast.

ANCTERES, in the Ancient History, seem to have been the same, at least to have suffered the same fates as our Sutures.

Some also speak of a strong kind of fleshy platter under this denomination.

ANCETERIUMUS, in Medicine, the operation of applying a filula to close the two patent lips of wounds. This is also called by Latin writers, infilulatin.

ANCETERIUMUS is more particularly used to denote the passing a filula through the prepuse of the ancient flagellators and buccinators.

ANCUAH, in Geography, a town of the province of Alavahat, to the north of Egypt and of the Thebaid.

ANCUBITUS, among Ancient Physicians, denotes a disease of the eyes, wherein there is an appearance of sand, or little stones sprinkled on them.

This is otherwise called Petrification.

ANCUD, in Geography, an archipelago or cluster of islands in a part of the Pacific Ocean, between the coast of Ancud, that of Chili, and the island of Chiboe.

ANCUD is a name given to a coast of South America in the province of Chiboe, between the archipelago of Ancud to the west, the Andes to the east, the country of Olorn to the north, and the Terra Tagelliana to the south.

ANCUPOPOLIS, or the city of Anchors, in Ancient Geography, was one of the cities of the Hi-ranomus in Egypt, mentioned by Ptolemy, and so called from a neighbouring quarry, out of which those anchors were cut.

ANCUS, a name for such as have an arm bent crooked, so that they cannot extend it. See Ancer.

ANCUS MARTIUS, in Biography, the fourth king of Rome, was grandson of Numa Pomphilius by his daughter Pomphila and Marcus his relation, the son of that Marcus who perfused Numa to accept of the kingdom, and who afterwards killed himsel, because he was not chosen in his room.

His name Ancus was derived from the Greek word ανκος because he had a crooked arm, which he could not stretch out to its full length. He succeeded Tullus Hollius, according to the common computation, in the year before Christ 534. He began his reign by endeavouring to retain the religious ceremonies, which had been neglected in the time of his predecessor, to their former use, to revive husbandry, and to promote the arts of peace. Nevertheless his natural disposition was martial, and he gained various advantages for his country by his arms. The Latins gave him an early opportunity of exercising his military talents. Having violated the treaty which had been made with Tullus, by invading the Roman territories, Ancus declared war against them with all the religious solemnity enjoined by Numa, and took the field with an army consisting entirely of new-raised troops. After having taken several cities, he defeated them in a pitched battle, obliged them to sue for peace, and obtained a triumph at Rome for the advantages which he had gained. He also recovered Fidenae, which had revolted; defeated the Sabines, and obtained victories over the Veientes, for which a second triumph was decreed him by the senate.

During his reign Rome was greatly enlarged, by carrying the walls round the Aventine Hill, and including the hill Janiculum, which was on the other side of the Tiber, and which was now made a fort of citadel for Rome. A communication was also opened between this citadel and the city, by means of the bridge Sublicius, which Ancus erected over the Tiber, and that part of the river which washes the foot of the Aventine Hill. He also built a large prison in the Roman forum. Ancus likewise extended the territories of Rome as far as the sea, and established the port and city of Ostia, in order to secure to his subjects the advantage of trade. About this time he caused many salt-pits to be dug, and distributed salt among the more indigent classes of his subjects. He rebuilt the temple of Jupiter Feretrius in a very magnificent manner; and having spent the latter years of his reign in improving the city, and enriching its inhabitants, he died, after a prosperous reign of 24 years. Livy, lib. i. c. 35. 38.; t. i. p. 134—144. Dion, Hal. lib. iii. t. i. p. 170; &c. ed. Oxon.

ANCY, in Geography, a small town of South America, three leagues from the city of Guaramanga.

ANCY LE DUC, a town of France, in the department of the Saone and Loire, one league north of Marcigny les Nonains.

ANCY LE FRANC, or Encre, a town of France, in the department of the Yonne, and chief place of a canton, in the district of Tonnerre, eight leagues east of Auxerre, and three south-east of Tonnerre.

ANCY LE, in Antiquity, denotes a small kind of brazen shield, supposed to be the shield of Mars, and said to have fallen from heaven into the hands of Numa Pomphilius, at the same time that a voice was heard, that Rome should be mistress of the world while the preferred that shield. Though there was but one ancle that fell from heaven, yet there were twelve preferred; Numa, by the advice, as it is said, of the nymph Egeria, having ordered eleven others, perfectly like the first, to be made by Victorius Mamurris, so that if any should attempt to deal it, as Ulysses did the Palladium, they might not be able to distinguish the true ancle from the false ones. These ancylia were preferred in the temple of Mars; and were committed to the care of 12 priests or fali, instituted for that purpose. They were carried every year, in the month of March, in procession all round Rome; and the 30th day of that month they were again deposited in their place.

ANCY LE, le Anchylosisin.

ANCYLOBLEPHARON, or Anchylolophus, (from ἀνκυλό-, ὄξος, and ἵππος, palpebra) in Surgery, an adhesion of the eye- lids. This may either be a natural or a congenital defect, or it may be produced by accidents, such as burns, violent inflammations, and ulcers. The eye-lids may either adhere to each other only, or they may adhere to the eye-ball itself; and sometimes both kinds of adhesions are present together.

There are properly three degrees of this disease. The first is, when the eye-lids are only glued together by means of pus or thick mucus, as happens in many inflammations of the eye, particularly in the suppurating inflammation, whilst the patient is asleep; also in the small-pox, when the eye-lids have been kept close for several days in consequence of the general swelling of the face; in such cases, therefore, it is also termed the purulent species of the disease. The second degree is when the edges of the eye-lids not only adhere together, but are even connected by means of a cicatrix. The third degree is where the eye-lids have also formed an adhesion with the conjunctival coat, or the ball of the eye. This third degree is also particularly termed symblepharon. These two last degrees are accounted the genuine species of the disease.

In the first degree, when the eye-lids are glued together by a purulent or tough mucous matter, we must employ emollient applications. The eye-lids should be moistened with a lukewarm mixture of milk and water, or with an infusion of rad. aloes, or with an emollient decoction, applied upon a piece of linen, till they spontaneously separate from each other. We may also rub them gently with an ointment consisting of fyr, papav. ol. amygd, and camphor, and after-wards
wards apply an emollient poultice of lb. glbr. f. m. linu and milk. Should these remedies not produce the desired effect, we may cautiously introduce a probe with a knife between the eye-lids, and thereby prevent the adhesion.

In the second degree the edges of the eye-lids either adhere together at all points from some cause to the other, so as to form a perfect concretion, or they are only more or less connected together at one or the other angle of the eye. In the first case, the patient is entirely deprived of sight; in the second he can see by turning the ball of his eyelids sideways, so that if the disease be not speedily removed, squinting may easily be the consequence. The method of cure in this disease is to separate the eye-lids from each other by means of an incision.

In this operation the surgeon must use great caution in directing his instrument, so as to avoid the ball of the eye, and prevent its injuring the eye-lid in such a manner as to lay bare the tarsus, the consequence of which might be a very troublesome ulceration. This may be accomplished without difficulty, when the eye-lids do not entirely adhere together, but are still separate at some point; for example, when there still remains an opening at the internal canthus. Some use for this purpose a small grooved probe, which they introduce between the eye-lids, and then carry along the groove a thin and somewhat crooked-bladed knife, or a small pair of scissors, or a lancet. But in preference to the probe we may use, as a more convenient and safe instrument, a small knife, with a straight back, but somewhat curved at the edge, and terminating at the point in a very small probe with a knob, about two lines in length.

For performing the operation the patient is placed upon a chair, in a convenient posture; an anesthetic fees the head, and, at the same time, draws the superior eye-lid upwards, whilst the surgeon draws the inferior downwards with two fingers, or else draws it with a small forceps downwards, and, at the same time, off from the eye. Sometimes the surgeon himself may stretch both eye-lids from each other with the fingers of one of his hands.

With the other hand he introduces the scalpel above-mentioned under the eye-lids, in such a manner, that the back is directed towards the ball of the eye, and the edge to the place where the preternatural adhesion is situated; that is, to the interval between the two edges of the eye-lids, or between both rows of eye-lashes, which frequently remain uninjured by the disease, pushes it forwards, and thus divides the preternatural adhesion. In case of necessity he may also use a small pair of eye-scissors, though this instrument is not so safe and convenient as the blunt-pointed scalpel.

When the eye-lids are entirely closed they must first be opened at some external point, by drawing out the skin into a crook fold, and introducing a lancet into it, so as to form an aperture through which a scalpel or probe may be introduced; which being done, the rest of the operation is performed after the manner already described. But left the ball of the eye might be injured, the first aperture should be made with caution, and always either at the inner or outer canthus of the eye, for fear of wounding the transparent cornea, which might thereby be rendered opaque. The safest method of proceeding will therefore be to draw at the same time the eye-lids from each other. This incision, however, but seldom becomes necessary; for even in a complete adhesion an opening may always be perceived at the inner canthus of the eye, through which a scalpel or probe may be introduced. When the puncta lacrymalis are likewise obstructed, a species of fistula lacrymalis remains after the operation, unless the puncta can be opened. See Fistula Lacrymalis.

When the divison of the preternatural adhesion has been performed, we should apply to the eye a piece of very fine soft linen spread with Gumul's tincture, or some other cooling ointment; and after the first dressing we should daily rub between the eye-lids a quantity of ointment made with fresh butter and flor. vini. or fulva, either with or without half a Peruv. or else some buttermilk ointment. The patient should likewise repeatedly open and move his eye-lids during the day; and in the first night after the operation he should let himself be frequently awakened, in order to prevent the formation of a new adhesion. In this, as in all other operations on the eye, we should do all that is in our power to prevent inflammation, and to relieve any that may have taken place.

But, before we operate upon a complete adhesion, we should carefully examine whether the ball of the eye be perfectly found, and whether the eye-lids have not formed adhesions with the ball of the eye also; which may happen in cases of burns, or when quicklime has fallen into the eye, in which cases not only the edges of the eye-lids, but the ball of the eye itself is generally injured, and the cornea rendered entirely opaque. For when the cornea is entirely opaque, and the eye-lids adhere not only with each other, but also with the ball of the eye; when the patient perceives no sensation of light, while a candle is held close to his eye in a dark room, and in general cannot distinguish light from darkness; when the eye-ball is felt under the eye-lids small and collapsed; and when from the cornea, by which the disease has been occasioned, there is reason to suspect that the cornea has been rendered opaque—the patient's sight cannot be restored by an operation, which consequently will be superfluous. We may conclude that the eye-lid adheres to the ball, and that an operation will consequently be difficult, if not impracticable, when the eye-lid cannot be moved backwards and forwards upon the ball, or when we feel that the patient cannot move the ball of his eye, or when, in moving it, the eye-lid contracts itself into wrinkles. However, when the eye-lid does not adhere throughout, but only at particular points, and not on the cornea, to the ball, it is worth our while to attempt the operation, for which purpose we must first draw the eye-lid under, and then separate the adhering lid from the ball.

In the third degree, which consists in a preternatural adhesion of the eye-lids with the ball of the eye, there sometimes also exists an adhesion of the edges of the eye-lids with each other; in many cases, however, the adhesion subsists only between the eye-lids and the ball, forming what is termed Symblepharon. Of such adhesions several varieties are observed; they are sometimes firm, or bloody; at others, loose or membranous. Either the whole surface, or a single part of one or the other eye-lid adheres to the ball. In the first case, which is very rare, the patient is altogether unable to open his eye; in the second he can only open his eye-lids partially, and fee when he turns the ball of the eye to the aperture; in which case he may easily become subject to Strabismus by habit. The adhesion of the upper eye-lid occurs far more frequently than that of the lower.

The separation of the preternaturally united parts can here be performed only by the knife. A small crooked knife, formed like a probe, at the point, has been proposed for this purpose. In performing this operation, we must take care that we may not injure either the eye-lid or the ball of the eye, which it is the more difficult to avoid, as we frequently cannot see how we carry the knife, on account of the hemorrhage. By pricking the ball of the eye with the blade of our instrument backwards from the eye-lid, and at the same time drawing, or letting an anesthetic knife draw the eye-lid forwards from the ball, we may in many cases not only perform a part of the separation without cutting; but also, if in action
tion should be necessary, we may use our instrument with greater safety, and without injuring any of the parts. With this view Mr. Kaltschmidt has recommended to use a small lancet in such a manner, that its surface lies firm upon the surface of the eye, the edge being steadily directed against the fibres which form the adhesion, so as to divide them more by pressure than by moving the lancet to and fro. Moreover, we ought, in performing this operation, to be particularly cautious not to injure the inner surface of the eye-lid, it being better to cut away a part of the conjunctiva of the eye, than to injure the eye-lid itself. But when the eye-lid adheres to the cornea we must spare the latter, and press the knife more upon the eye-lid. For performing this operation a steady and experienced hand is particularly necessary.

This operation, however, is always very difficult, and will it be attended with no benefit when the cicatrisation is firm and fibrous, and when the eye-lid adheres closely to the ball. Neither will it be productive of any benefit when the eye-lid, though adhering only at one point, is connected with the cornea, and the adhesion is of a mucular nature; so that it is highly probable the cornea will be rendered opaque, unless we can hope afterwards to restore its transparency. In this case, however, as in every case where the adhesion is mucular and cicatrisated, it is very difficult to prevent the parts from forming new adhesions with each other. It is, therefore, only in those cases where the adhesion is loose and membraneous, and only a small part of the ball connected with the eye-lid, and that at the side, that the operation can be performed with facility, and with a fair hope of a fortunate event; though even here it is often very difficult to prevent a new adhesion from taking place. When the adhesion is very loose, we may frequently dispense with cutting instruments, and effect the separation by means of a small blunt knife, shaped like a spatula.

In order to prevent the formation of a new adhesion, after the operation, some introduce into the eye, others a piece of linen or fine leather, in the form of a crescent, others a thin, smooth plate of ivory, lead, or horn, shaped so as to correspond with the form of the eye, or only a thin, flat piece of wax. All these foreign substances, however, when introduced between the ball and lid of the eye, irritate, press, and inflame the eye; neither do they keep their situation. It is therefore better to direct the patient frequently to roll the ball of his eye, and not to sleep too long at a time; and when the haemorrhage has ceased, frequently to introduce upon the inner surface of the eye, with a hair pencil, a little cream, oil of almonds, fatumine or tawty-ointment; or to drop, into the space, between the lid and the ball, some gently astringent and drying collyrium. We may also (as Heister advises) introduce repeatedately towards the termination of the cure a blunt probe between the lid and ball of the eye, and move it gently backwards and forwards; but this must be done with the utmost caution. Any remaining opacity of the cornea must be treated with the proper remedies.

The method of treatment, practised by Fabricius Hildanus (Obsev. Centur. v. Obf. 7.) might also in some cafes be attempted. His method was gently to introduce a crooked probe at the inner angle of the eye, under the upper eye-lid, between the lid and ball of the eye, till its point projected out of the outer canthus. He then fastened a fine silk thread to the point of the probe, and introduced the probe again in the same manner as before; the ends of the thread he tied together under the eye, and fastened a small lump of lead to them. During the day time the lead was suffered to hang to the thread, but it was taken off when the patient went to bed. By means of this thread, and the weight suspended to it, the adhesion was separated in the space of nine days, the eyelid and ball of the eye completely recovered their motion, and nothing of the dis ease remained behind except a small speck upon the cornea.


ANC夷LOGOSSUM, or ANCYLOGLOSSUM, in Surgery, (from Gr. an, to scrape, and klyxos, a tongue) An cyclyon, and adhesion of the tongue, or the being tongue-tid. This term is applied to that mol formation of the parts, in which the frenulum of the tongue confines its apex too much, and impedes its motion, either by its being continued too far forwards towards the extremity of the tongue, or by its being too short, confounded in its perpendicular direction. Both these defects are generally natural ones, and are therefore most commonly observed in new-born infants. However, in adults, the frenulum may sometimes be shortened, and the motion of the tongue impeded in consequence of a wound, ulcer, &c. We discover the existence of this defect, when we find that we cannot introduce the finger under the tongue, and raise it up; when the infant neither sucks the finger, when it is introduced into its mouth, nor the nipple of the mother; when the child, after it has begun to speak, cannot properly pronounce the letters which are principally articulated with the apex of the tongue, namely, ï, ï, r, (a very complete adhesion of the tongue, whether by means of the frenulum, or any other preternatural connecting subnance, may even occasion complete dumbness); and when the apex of the tongue cannot be drawn forwards, beyond the teeth, to the gums or lips.

The cure of this defect consists in the operation of dividing the frenulum, which, however, is very frequently performed without necessity, and to the very great detriment of the infant. (Fabricius ab Aquapendente) Chirurg. Operat. cap. xxxvi.) advised, that among a 100,000 children that were born, scarce one actually required this operation. See also Jourdan on the dices of the Mouth, vol. ii. p. 594. and 622.) For only in that very rare case, in which the infant is unable to suck, in consequence of the immobility of the tongue, are we authorized and obliged to perform the operation. Should even the frenulum be something too short, and the apex of the tongue not sufficiently moveable, so that there is cause to apprehend that the child, when he learn to speak, will not be able properly to articulate the lingual letters, we ought, provided he be not prevented from sucking by that defect, to defer the operation to a future period, for it is unnecessary to perform it at present; and should it afterwards become necessary, for the purpose of enabling the child to articulate his words properly, it may then be performed with greater facility, safety, and accuracy; besides, that the frenulum often becomes spontaneously elongated, and sufficiently extended in consequence of the mere inotion of the tongue. As there are various other causes, which may be impediments to the infant in sucking, we must not always look for the fault in the state of the frenulum. Nay, though we should even find the tongue actually moveable in an infant that either cannot or will not suck, we are not authorized immediately to suppose that the defect of the frenulum is the cause of it, and so undertake the operation without further examination. For we sometimes find that preternatural membranes and ligaments, which proceed from the lateral edges of the tongue, and connect it with the gums, were the cause of the impeded motion of the tongue; and that, after these have been divided, the infant is able to suck. In new-born infants the tongue sometimes adheres so strongly to the gums, by means of a viscid mucus, that...
that the patient cannot suck, may, if early, draw breath; this
may also be easily removed by means of a spatula.

In performing the operation, we have principally to take
care to make the incision into the frenulum of the proper
length; for if it make it too long, that is too far on to-
wards the root of the tongue, the tongue becomes too
movable, and another defect, of which we shall treat here-
after, is produced; whilst, if we do not make it long
enough, the tongue does not acquire sufficient mobility, and
the intention of the operation is not completely answered.
However, it is always better rather to make the incision too
short than too long, as in the former case the operation may
be repeated, and the division made longer, whilst, in the lat-
ter, the fault cannot be remedied. Moreover, we ought al-
ways to make the incision as much as possible in the middle,
between the tongue and the subjacent soft parts, and avoid
the blood-vessels, nerves, and salivary ducts.

When it is determined to perform the operation, we pro-
ceed in the following manner: The patient being properly
secured, and his mouth opened, we introduce the common
mouth-spatula under the apex of the tongue, in such a man-
er that the frenulum lies in the flat of the spatula. Instead
of this spatula we may also use a grooved probe, with a flat
and flat handle. Some recommend, instead of the spatula,
to use a small two-pronged fork, with knobs at the points.
With one or other of these instruments, which we hold in
the left hand, we raise the apex as much as possible, and
stretch the frenulum. This manoeuvre, as well as the reef
of the operation, may be facilitated by applying external
pressure under and behind the chin, by which means the
soft parts under the tongue are elevated. We then divide
the frenulum with a round-pointed pair of scissors, which we
hold in our right hand. The crying of the child greatly fac-
itates the operation; in performing which we may also
compel his nostrils, which will compel him to keep his
mouth open.

Various other complicated instruments have been propos-
ed for performing this operation, but they may all be dispensed
with, as none of them have any advantage over the more simple
ones, the spatula, and scissors; indeed we have often performed
the operation with no other instrument than the scissors.
When the frenulum has been properly divided, there is seldom
any necessity for employing any peculiar treatment; it may,
however, be useful, during the first period after the opera-
tion, to draw a linen rag, neatly spread with fine-powdered
fogar or honey, several times a day under the tongue, in or-
der to prevent the formation of a new adhesion. Sometimes
also it happens, especially when the frenulum is uncommonly
fibrous, or has been divided too far back, that a haemorrhage
follows, which, though not usually a matter of grave conse-
quency, may frequently be rendered dangerous, nay, even fatal in consequence of the
flocking ensuing in new-born infants, upon awakening, when
the breast is not soon given them. This accident may be
prevented by attending to the infant for the first twenty-
four hours after the operation, and as soon as it awakes,
taking it up, and laying it to the breast till it falls again
asleep. But there is still greater cause to apprehend a dan-
gerous haemorrhage, when, through want of the proper cau-
tion, any considerable blood-reflux under the tongue has
been injudiciously drowned with strong astrigent remedies, as vinegar, wine, vinegar, spirit, vin-
reli, Theden’s aq. vinos. etc., which may all be employed
in this case, being and laid under the tongue; or with blue
vitriol, or agate, pressure being at the same time applied.
In order to prevent the fatal haemorrhage, which might af-
terwards supervene, it is necessary that the child should be
attended to during the first days after the operation, that we
may see whether it moves its lips or appears to suck or
swallow anything; and when it does so, we must im-
mediately examine whether any blood is discharges, in order
that we may be able immediately to stop the haemorrhage.
We have known a very troublesome excrescence arise under
the tongue of an infant, after it had been cut too deeply by
an officious nurse.

The frenulum may also, in some cases, possess too great
a facility of motion; namely, when, by a fault of the or-
iginal conformation it is too long in its perpendicular di-
rection, or when it does not extend far enough from the root
of the apex of the tongue. This fault is not to be dis-
covered till the child begins to speak. Little or nothing
can be done to remedy it, though it sometimes spontaneously
sublimes as the child grows older. A similar defect is pro-
duced when the frenulum has been divided without necessity,
or when, in performing the operation from proper indica-
tions, the incision has been made too long. When either this
or the preceding defect is present in a high degree, it some-
times happens that the infant, or which is in the habit of suck-
ing as soon as it awakes, sucks down the apex of its tongue,
and is suffocated. If we discover the accident in time, and
extract the tongue with one finger, the infant immediately
recovers; it will, however, be necessary that we should pre-
vent the recurrence of a similar accident. Thus we may do
by two different means. As soon as the infant awakes, and
begins to suck, we must either let it have the breast imme-
diately, or we must put a finger or some other substance into
its mouth till the breath can be given it. When it has been
weaned it gradually looses the habit of sucking its tongue,
and then there is no more danger to be apprehended. When
circumstances do not admit of such attention being paid to
the infant, or when the child, after it has been weaned,
still retains the habit of sucking its tongue, we may prevent
the tongue from being drawn down into the throat, by applying
an ivory stick between the jaws of the child, which is to be bal-
ced behind the neck and under the chin with strings. With
adults whose frenulum is either too loose, or does not extend
far enough towards the tip of the tongue, we may employ
the tongue-handage of M. Petit or Pibrae, of which we shall
take notice under the article Wounds of the Tongue.

Finally, by frequent and forcible suction of the retro-
verted tip of the tongue, adults may sometimes stretch, elon-
gate, and relax their frenulum, which before was quite per-
fected, in such a manner as to produce all the defects above-
mentioned.

Instead of a frenulum we sometimes find, in infants, a
flacile excrescence under the apex of the tongue, which fre-
cently is so large as to prevent both suction and deglutition,
and can only be removed by excision. In this operation we
have chiefly to apprehend the haemorrhage, which sometimes
is so profuse as to occasion the death of the patient. As the
remedies abovementioned are not applicable in such cases, we
ought to employ the actual cautery, or sometimes we may
succeed with compression. It might, perhaps, be advisable
to cut out, at first, only a part of the excrescence, so as to
enable the patient to suck and swallow; after which, as he
gets older, the rest of it may be extirpated with greater
care and safety, if it produce any inconvenience. Both in
children and adults, fiction, deglutition, speech, and mal-
ition are sometimes attended by painful excrescences on the
frenulum, which ought to be removed by cutting, tying, or
cauting. Ulcers, ulcers, and encysted tumours, which are
frequently found on the frenulum, must be treated in the
same manner as when situated in other parts of the body.

Vide Chr. Car. Lang. Diff. de frenulo linguae, epit. in-
Schweigbauer
ANCYRA, now called by the Turks Ancoreti, in Ancient Geography, a city of Asia Minor, and formerly the capital of Galatia, situated near the small lake Czamas, and not far from the river Halys, and belonging to the Techofagi. Panemnias (Attic, c. iv. p. 12.) intimates that it was founded by Midas, and that it derived its name from an anchor which was found there, and which was preferred in the temple of Jupiter. It was afterwards greatly enlarged and adorned by Agustus, who, on this account, might be deemed the founder of it. In the time of Nero this noble city received the title of the metropolis of Galatia, and it is still populous. Its inhabitants, according to Suidas, were denominated Hellenogalates, or Græco-Galli. See Ancora.

ANCYRA, Ancyra Abydilis of Strabo, a town of Phrygia, mentioned by Pliny (l. v. c. ult.) and confounded by Steph. Byz. with the Ancyra of Gallo-Greece of the preceding article.

ANCYRE, a town of Sicily, mentioned by Diodorus Siculus, lib. xiv. c. 49.

ANCYREUM, a promontory of Asia Minor, noticed by Dionysius Periegetas, as situated where the Euxine Sea terminates, and where the Bosphorus commenced.

ANCYROIDES, ἀνκυροῖδης, is used by some writers in Anatomy for the procfs or shooting forth of the shoulderbone, in form of a hook; otherwise called coracoides.

ANCZAKRISH, in Geography, a river of Podolia, which discharges itself into the Black Sea, near Oczakow.

ANDA, in Botany, is a tree of Brazil, found, according to Pison (Hist. Nat. Raccen.), in the forests, at a small distance from the sea-coast; the wood of which is finegrained and light; the leaf long, fibrous, and pointed; the flower large and yellow; and the fruit a grey nut, which mingles under a double rind, two kernels of the taste of chestnuts. The fruit is said to be purgative, and a little emetic; two or three of the kernels are a dose. The Indians extract oil by expression from these kernels, with which the natives anoint their limbs. The rings of the fruit are esteemed proper to stop a looseness; thrown into ponds they kill the fish.

ANDA, in Ancient Geography, a town of Africa, according to Appian.

ANARBAT, in Antiquity, a kind of gladiators, who fought hand-winded; having a sort of helmet that covered the eyes and even the face. They were called anabataras, quivi anabataras, oftenas, because they fought mounted on horseback, or out of chariots. Others derive the word from an, against, and bas, I go.

Some say, the anabataras fought in the dark, or late at night, after the cirensia were over. There were two men in the chariot, viz. the driver, or auriga, and the anabataras, who was also called anabataras, q. d. adfensuros, or mounted; whence by corruption the Latins formed the anabatara.

It has been disputed among critics whether the anabataras were a people who actually fought blindfold in their wars, or a set of combatants who only practised this method of fighting for the sake of appearance.

ANDABATIS, in Ancient Geography, a town of Cappadocia, according to Antonine.

ANDACA, a town of India, which surrendered to Alexander, but its situation is unknown.

ANDAGUAYLAS, in Geography, a jurisdiction of the empire of Peru, in South America, subject to the archbishop of Lima; situated east by south of the city of Chimuques, extending between two branches of the Cordillera above 20 miles, and watered by several small rivers. It abounds in sugar plantations, grain of most sorts, and fruits. This province is one of the most populous in these parts; and its climate is partly hot, and partly temperate.

ANDAGYRA, or Andegi, a district of the island of Samtara, with a populous town of the same name, situated on a river commodious for trade; the chief article with which this district abounds is pepper.

ANDAJA, a river of Spain, in Old Castile, which joins the Duero.

ANDALUSIA, a province of Spain, which formerly comprehended the kingdom of Granada, then called Upper Andalusia; but the name is now appropriated to Lower Andalusia, which is the most weftly province of the southern part of Spain. It is separated, on the north, from Elframadura and New Castile by the Sierra Morena Mountains; on the east, from Portugal by the river Chagan, and on the west, from Algarve by the Guadiana; on the south, it has the ocean, the Straits of Gibraltar, and part of the Mediterranean; and along the south-east it has the kingdom of Granada. Its utmost length from Ubeda to Ayamonte, is ninety leagues, and its breadth about fifty. Its chief cities and towns are Seville, the capital, Baeza, Carthage, Corduba, Cadiz, Medina Sidonia, Jerez; Port St. Mary, &c. Its principal rivers are, the Guadalquivir, Xerila, Odor, or Odilo, Guadalate, and Tinto, or Azeeche. Andalusia is reckoned the richest and most fertile province of Spain; abounding in exquisite fruits of all kinds, honey, excellent wine, grain, silk, sugar, fine oil, numerous herds of cattle, particularly horses, metals, timmer, and a species of quicksilver. The air, though warm, is refreshed by cool breezes, and the great extent of sea coast is favourable to commerce. The wool of Andalusia, says Keyler, (Travels, vol. iii. p. 22.) is known to surpass all others; though the flocks on which it grows were originally natives of England. The name of Andalusia is applied by the Arabs not only to the modern province, but to the whole peninsula of Spain. Some have derived the name from Vandali, the country of the Vandals; but the Vandali of Carthage, which signifies in Arabic the region of the evening, or of the west, or the Hesperia of the Greeks, is perfectly apposite. Gibbon's Hist. vol. ix. p. 467.

ANDALUSIA NEW, a district of South America, in the eastern part of the province of Terra Firme, situated on the coast of the Atlantic, opposite to the Leeward Islands. The boundaries of this territory are indefinite, as the Spaniards pretend a right to countries in which they have never established any settlements. If the districts of Camana and Paria are included, it extends, according to the most reasonable limits, 500 miles from north to south, and about 270 from east to west. The interior country is woody and mountainous, variegated with fine valleys that yield corn and pasture. The produce of the country consists chiefly in dyeing drugs, gums, medicinal roots, Brazil wood, sugar, tobacco, and some valuable timber; to which may be added pearls, for which the Spaniards used to fish along this coast to Carthagena. The capital of Andalusia is Camana, Cu.
ANDANIS, a river of Carmania, so called by Ptolemy and Pliny, but denominated by Arrian, Anamis.

ANDANTE, in Muffe, from andante, lat. to walk, &c., neither to run nor to creep, but the medium between both those motions. Andante, the diminutive of andante, is applied to movements somewhat quicker, and bounding on allegretto, or rather grazioso.

ANDARAE, a people of India, on the other side of the Ganges, who turned, according to Pliny, a very powerful nation. Hardouin is of opinion, that the country which Pliny meant to describe was the kingdom of Pegu.

ANDARAX, in Geography, a town of Spain, in the country of Granada, six miles north-west of Ayna.

ANDARIA, in Ancient Geography, a town placed by Antonine in Dalmatia.

ANDARGE, in Geography, a river of France, which rages in the valleys of Oudon, and joins the Arvon near Venecul.

ANDARIACA, a town of Asia Minor, which was situated, according to Ptolemy, in Lyca.

ANDARIINI, a pulse of indiscriminately reduced into the grains, like amaranth.

ANDARISTUS, in Ancient Geography, a town of Europe, in Macedonia. Ptolemy refers it to the Naxaccas.

ANDAROS, in Geography, lies on the western coast of the peninsula of India. N. lat. 10°. and E. long. 73° 35' 35.

ANDASTES, an Indian nation, in Canada.

ANDATE, in Mythology, the goddess of Victory, was one of the principal deities of the ancient Britons; she had a famous temple at Cambodunum.

ANDATIS, in Ancient Geography, a town of Ethiopia, on the banks of the Nile, according to Pliny.

ANDAUTONIAM, a town of Higher Pannonia, upon the river Savus, north-call of Sicilia.

ANDAYE, in Geography, a sea-port town of France, in the department of the Lower Pyrenees, near the mouth of the Bidassos, on the borders of Spain, with strong fortifications, and a good trade; five miles south-west of St. Jean de Luz. N. lat. 43° 25', W. long. 1° 45'.

ANDEAH, a town of Hindostan, in the precinct of Bilhar, 30 miles east-north-east of Dilloh, and 120 south of Agra.

ANDECRUIUM, or ANDERUM, in Ancient Geography, a town of Dalmatia.

ANDEB, or ANTEAR, in Geography, a town of Turkey in Asia, in the government of Aleppo, situated on the road that leads from Aleppo to Erzerum, near the river Seckhard, in a valley that abounds with vines, various kinds of fruits and apples of a large size. This was anciently Antiocha ad Taurus.

ANDEGAN, the capital of Fergana, one of the provinces of great Bucharia.

ANDEGAVI. See ANDES.

ANDEIRA, in Ancient Geography, a town of Asia Minor, in the Thracian Cilicia, at some distance to the north of the small river Scillus. Near this town there was a chapel consecrated to the mother of the gods, and a subterraneous groto, which extended as far as Psicca.

ANDEL, in Geography, a town of France, in the department of the northern coast, and chief place of a canton, in the district of Lamballe, seven miles east of St. Brieuc.

ANDELANGA, in Middle Age Writers, occurs as part of the formula of divers donations.

In this case we meet with donare per andelangam et felicem, vendere & tradere per andelangam, &c. Some will have the term properly to denote what we call an andiron;
AND

iron, &c.; others a long staff, or rod, which it is known was much used in the act of putting into possession.

The word is sometimes also written andelangus, andelage, andelhage, or andelague, &c.

**ANDELINGEN** or ANDELINGEN, in Geography, a town of Switzerland, in the canton of Zurich; seated on an eminence in a vantage of the same name, and near the river Thur; 17 miles north-north-east of Zurich.

**ANDERLECH**; a town of France, in the department of the Upper Marne, and chief place of a canton, in the district of Chaumont, on the river Rougon; 16 miles north-north-east of Chaumont.

**ANDELSCH**; a river of Germany, which runs into the Danube, near Schier.

**ANDELUS**, in Ancient Geography, a town of Spain, placed by Ptolemy among the Pyrenees.

**ANDELY**, in Geography, a town of France, and principal place of a district, in the department of Eure. It is divided into two by a paved causeway; one of the parts is called Le Grand Andely, and the other Le Petit Andely; the one is upon the Seine, the other upon the river Gambon. It is 20 miles south-east of Rouen. N. lat. 49° 15'. E. long. 1° 14'.

**ANDEA**, in Ancient Writers, denotes a swath in mowing. The word is likewise used to signify as much ground as a man can plough over at once.

**ANDEAS**, in Geography, a small island of Norway, in the North Sea, with a town of the same name. N. lat. 69° 30'. E. long. 14° 54'.

**ANDEOL**; or **ANDOL**, a small town of France, in the Vivarais, at the junction of the Ardeche with the Rhone. It is four leagues from Viviers. N. lat. 44° 24'. E. long. 29° 50'.

**ANDERA**, a beautiful village of Egypt, on the Nile, in which are found several monuments that indicate its former grandeur.

**ANDERAB**, the chief city of the province of Tokara, in Great B Hawaii, situated near a pass through the mountains of Hindoosh Koh, which separate India and Persia from Bucharia, andpossessed by the Ubeck Tartars. As there is no other way of crossing the mountains towards India with beasts of carriage, except through this city, all travellers and goods from Bucharia are obliged to pay four per cent. On this account the khan of Balk maintains a considerable number of soldiers in this place, which is otherwise of no great strength. Andarab, though small, is very rich and populous. The neighbouring mountains yield quarries of lapis lazuli, which furnish a considerable trade between the Buchari and Persia and India.

**ANDER-ESCH**; a town of the duchy of Luxemburg, two leagues and a half south of Luxemburg.

**ANDERITUM**, or **ANDERIUM**, in Ancient Geography, afterwards called Gabala, the capital of the Gabala, in Aquitania Prima. It was an episcopal see; but the city was ruined by an incursion of the Alamanis, and the see was transferred to Mende.

**ANDERLECH**, in Geography, a town of Brabant, three miles south-west from Brussels.

**ANDERNACH**, a town of Germany, in the circle of the Lower Rhine; in the archbishopric of Cologne, and in a prefecture of the same name. It was anciently called Antoniacum, Antonacum, and Antonacensium, and was a free imperial city. In the year 1496 it was by force of arms rendered municipal by the elector of Cologne, to whom it now belongs. It is seated on the Rhine, and a toll is levied on travellers for the support of its walls. Its trade, for which it is advantageously situated, consists principally of stone ware, tiles, timber, and the forlorn, a stone used in constructing dykes, which are conveyed to Holland by the Rhine. It is also remarkable on account of the large rafts which are here built upon the borders of the Rhine, the smaller ones being brought down the rivers Mayn and Rhine from Franchen and the country about Mentz, which are here united with those of Andernach. One of these rafts, when it arrives in Holland, whither they pass from the month of May to the end of August, is calculated to be worth about 80,000 guilders. They frequently require from 2 to 500 men to guide them. An irrecusable animosity subsists between the inhabitants of Andernach and those of Liitz, and it is kept up by an annual sermon preached against the latter in the open market-place of Andernach. There are three medieval springs in its vicinity. It is situated on the confines of the electorates of Treves, three leagues north-west from Coblenz, and eight and a half south-east from Cologne. N. lat. 50° 20'. E. long. 17° 56'. R. Render's Tour, vol. i. p. 316.

**ANDERNO** Port lies on the east side of Scarpante, near the Archipelago Islands, nearly in the course of the east end of Candia Island to Rhodes, to the north-east.

**ANDERO**, St. A sea-port town in the Bay of Bacca, in Old Caffia, seated on a small peninsula. It is a trading town, and contains about 700 houses, 2 parish churches, and 4 monasteries. Here the Spaniards build and lay up some of their men of war. N. lat. 43° 20'. W. long. 4° 50'.

**ANDERSON** Island, St. See **ANDRES**.

**ANDERSKOW**, a town of Denmark, in the island of Zealand, one mile south-east of Flagele.

**ANDERSON, Alexander**, in Biography, an eminent mathematician, was born at Aberdeen, in Scotland, and flourished at the latter end of the 17th, and beginning of the 18th centuries. He was professor of mathematics at Paris, where he published several ingenious works in geometry and algebra both of his own and of other persons. In 1612 he published in 4to. a supplement to Apollonius, written by Ghetaldus, under the title of "Supplementum Apollonii Redivivi." His "Antilagiæ," treating of the analytical method of reasoning, and containing farther observations on the former work, was published at Paris in 4to. in 1614. About the same time he published two treatises of Vietæ, "On Equations," with a dedication, preface, and appendix, and Vietæ's tract of "Angular Sections," with demonstrations. A cousin of this gentleman, whose name was David Anderson, was also distinguished for his acquaintance with mathematical and mechanical science. His daughter was the mother of the celebrated James Gregory, and as soon as she discovered his propensity to these sciences, she took pains in giving him necessary instructions in the elements of mathematics. Hutton's Math. Dict.

**ANDERSON, Sir Edmund**, an English lawyer, was descended from a Scots family, settled in Lincolnshire, and prosecuted his studies, first at Oxford, and afterwards in the Inner Temple, where in due time he became a barrister. In the 19th year of Queen Elizabeth, he was appointed the queen's serjeant at law, and soon after one of the justices of assize. In 1581 he went the Norfolk circuit, and distinguished himself by his zeal against Browne, who was the founder of the sect denominated Brownists. His continued zeal in support of the established church recommended him to the queen; and in 1582 he was advanced to the
the dignity of lord chief justice of the common pleas. In the following year he received the honour of knighthood. In 1580 he was appointed one of the commissioners for trying Mary, queen of Scots, and he sat in the bar-chamber when sentence was pronounced against her. He afterwards, in 1587, sat in the same court, when Davidson, the queen's secretary, was charged with illusing the warrant for the execution of Mary, contrary to queen Elizabeth's command, and without her knowledge; and it was his opinion that the secretary had done "iulium non jutit," what was right but not in a due manner; upon which Mr. Grazier very properly observes, that this distinction was "excellent logic for finding an innocent man guilty," and drawn from the same mode and figure with the queen's order and no order for Davidson's signing the warrant." The distinction, however, was admitted; and the secretary was sentenced to pay a fine of 15,000 pounds, and to be imprisoned during the queen's pleasure. Judge Anderson seems to have imbibed, in connection with this subversion to the will of the court, an intolerant and persecuting spirit; and he has been reproached on this account, and unjustly, by the Puritan writers. Mr. Pierce, in his "Vindication of the Differences," p. 126, (ed. Lond., 1617,) charges him with very unjustifyable conduct, with regard to Udal, a Puritan minister, who was confined in 1586, and tried and condemned the following year, and with endeavouring to trick him out of his life. Upon an examination of Udal, at the house of Lord Cobham, in January, 1589-90, the lord chief justice endeavoured to draw from him a confession that he was the author of certain books, which furnished the charges against him; though a law, 42 Edw. III. c. 3. to which Udal referred, says generally, that no man shall be put to answer without pretence before judges, or matter of record, or by due process, and writ original, &c. Udal, indeed, was not tried till July following; nevertheless the judge must know that, considering the disposition of government towards paranatics, such a confession might endanger his life. He manifested a similar spirit in 1596; when he declared in his charges, in the northern circuit, that those who opposed the established church, opposed her majesty's authority, who was suprime in all cases ecclesiastical as well as civil, and on this account they were enemies to the state, and disturbers of the public peace; and he directed the grand juries to inquire concerning persons of this description, that they might be punished. At Lincoln, in his first and second charge, as we are informed by the letter of a clergyman, preferved in Strype's Annals, vol. iv. p. 267, he intimated with wonderful vehemency, that the country is troubled with Brownists, with disciplinarians as he called them, and creators of Presbyterians. He also called the preachers knaves; saying, that they would start up in the pulpit, and speak against every body; he urged the grand jury to suppress, by the statute against Conventicles, a meeting held even with the bishop's allowance, at Lowth; and declared that he would complain to her majesty of any, though never so great, who should show themselves discontented with the jury for any such matter; in short, he conducted himself with so much wrath, so many oaths, and such reproachful revilings, upon the bench, that offence was taken at it by persons of principal credit and note, throughout all the circuits.

He was nevertheless an able lawyer, and adhered with rigorous exactness to the statutes; nor does it appear, that his obedience to the will of the sovereign proceeded, like that of others, from view of personal interest, or from a fear of losing his office, but from respect for what he deemed the constitutional right of the crown. In a case, when the queen would have hitherto her prerogative beyond the limit of the law, the lord chief justice and his brethren resisted, and by their headmen obliged the queen to relinquish her claim. He also, together with the other judges, signed a remonstrance against the arbitrary proceedings of the court, by which at the command of a councilor, or nobleman, subjests were frequently committed to prision, and detained without good cause, and contrary to the laws of the realm; a spirited measure which produced considerable effect; for we are told in Sir William Anderson's reports (Reports, part ii. p. 267,) that "after this there did follow more quietness than before." Upon the accession of James I., the lord chief justice was continued in his office; and he retained it till his death in 1607. "With a harsh and severe temper, and intolerant principles, which rendered him hostile to lecaries, and with notions of arbitrary power, which made him, in some cases, an instrument of tyranny, he appears to have possessed great firmness of temper, and independence of character. If his principles would not suffer him to be always an equitable judge, he was a great lawyer, and, on the whole, a honest man." His works are "Reports of Cases," adjudged in the time of queen Elizabeth, in folio, London, 1644; "Reformations and Judgments in the Courts of Welfmiller, in the latter end of the reign of queen Elizabeth," published by John Goldseborough, Eqt. 1653. The title is now extinct. Bog. Brit.

Anderson, John, the son of a rich merchant, was born at Hamburgh, in 1674. Having made great proficiency in canon law, natural history, and the languages, he was made synodic of the city of Hamburgh, and he was employed in various negotiations in the principal courts of Europe. In the prosecution of his studys and research, he directed a particular attention to the northern nations, and both by reading and conversation obtained a very considerable degree of information concerning them. By means of the Danish colonies established in Davis's Straits, he gained an accurate knowledge of those sequestered parts, and he was enabled to correct many erroneous and fabulous accounts, concerning the state of Iceland. The result of his inquiries was communicated to the public in a German work, entitled, "The natural history of Iceland, Greenland, Davis's Straits, and other northern regions;" since translated into other languages. Mr. Anderson died in 1743; and left behind him MS. pieces, that have not been published. Moreri.

Anderson, Adam, a native of Scotland, was brother to Rev. James Anderson, D. D. editor of the "Diplomata Scotiae," and "Royal Genealogies," miniifer of the Scots church, in Swallow-street, Piccadilly, and known in London, among his connections, by the name of bishop Anderson; a learned but imprudent man, who lost a great part of his property in the year 1720. Adam Anderson was for 40 years a clerk in the South Sea House; one of the trustees for establishing the colony of Georgia, in America; and one of the count of affidants of the Scots corporation, in London. His well known work, entitled, "An Historical and Chronological Deduction of the Origin of Commerce," was first printed in two volumes, fol., in 1764; and a new edition of it, with considerable additions, was published in four volumes, 4to., in 1789. Mr. Anderson died in Red Lion-street, Clerkenwell, Jan. 10, 1755.

Anderson's Island, in Geography, a small island in the North Pacific ocean, discovered soon after Mr. Anderson, the surgeon of the Resolution, had breathed his last, and so called after his name. It was seen at some distance from a rocky point called Cape Newham, situated in N. lat. 58° 42', E. long. 107° 36'.

Andes, in Ancient Geography, a small place of Italy, near Mantua, celebrated as the birth-place of Virgil; hence he
he is called Andes, according to some copies of Silius Italicus, lib. viii. v. 596; whilst others read Aemius. It is now the village of Bandas, situate where the Veron-fue hils imperceptibly slope down into the plain of Manuta.

Andes, Andegavi, or Andevar, a people of Gaul, to the east of the Namnetes or Namnetes, and to the north of the river Liger. Phryn (lib. iv. c. 18.) calls them Andegavi, and they are denominated by Tacitus (Annal. iii. c. 41.) Andevar, which Polymy has corrupted into Ondevacs. Their chief city was called Juohomagus or Civitas Andicavorum. It is now Angers, and the territory of the Andes was the previous Anjou. The Andes, or Andevairi, were valiant, and fought bravely in defence of their liberty; they entered into the conspiracy of Vereingotexos, under the conduct of Dumnacus; and under the empire of Tiberius, when they were greeenly oppressed with taxes, they raised the standard of rebellion.

Andes, a chain of mountains in South America, called by the Spaniards Cordillera de los Andes, or great chain of Andes, which commences near the capes of Ispido and Pi-lares, in the southern extremity of the continent, and stretches along the Pacific ocean, at the mean distance of about 100 miles, traversing the kingdom of Chili, and the provinces of Buenos Ayres, Peru, and Quito, to the west side of the gulf of Darien, through an interval of not less than 4600 miles. From thence they continue their course through the extensive kingdom of New Spain, till they lose themselves in the unexplored countries of the north. The chief summits of this range of mountains are near the Equator, not far from the city of Quito. The highest of them is Chimborazo, about 100 miles south of Quito, and about 10 miles north of Riobamba; and its height was computed by the French mathematicians, who were employed from 1735 to 1742, in measuring the degree of the equator, to be about 3217 French toises, or 20,280 feet, above the level of the sea; that is about 5000 feet higher than Mont Blanc. But as these mountains are elevated on the high plain of Quito, which is elevated farther above the sea than the top of the Pyrenees, and constitutes more than one-third of the computed height, they are inferior in actual elevation to Mont Blanc. That part of Chimborazo, which is covered with perpetual snow, is about 2400 feet from the summit. The mountain next in height is supposed to be the volcano of Cotapashi, which is estimated at about 18,000 feet, and is situated about 25 miles south-east of Quito. Other elevated summits are Pachuchina, a few miles north of Quito; and the Altar and Santos, four miles south of Chimborazo. In the province of Quito, the Andes form a double chain, including the plain of Quito. The western ridge comprehends Pachuchina, Illinai, Chimborazo, &c.; and the eastern is composed of Cotapashi, the Altar, Santos, &c.; and this double ridge is extended for about 500 miles from the south of Cuenca to the north of Popayan. The highest of these ridges is barren, and covered with snow, although it lies in the torrid zone; the other, which is lower, is fruitful in woods, groves, &c. and abounds with wild hogs and sheep, called guanacos, which resemble a camel in shape, but of a smaller size, and bearing hair for tatfoos, tunics, and colours, preferred for silk.

There are several arms, or ramifications, which proceed from the Andes, and which serve to confound the union of the southern with the northern parts of America. The most northern of these, or that of the coast of Venezuela, lying between nine and ten degrees of N. latitude, is the most lofty and narrow. This great chain of the Andes extends from the high plain of Quito, by Popayan and Choco, on the west of the river Atauro, towards the Andes, where, on the banks of the Chagre, it forms mountainous land only about 1200 feet high. From the same Andes proceed several branches, one called the Sierra de Abbe, towards the province of St. Marta, covered with snow, and visible from the sea. This chain is restricted, as it approaches the gulf of Mexico, and cape of Ver, and afterwards runs due east towards the mountains of Panama, or even to the Isle of Trinidad. The greatest height is in the two Sierras Ne-vadas of St. Marta, and of Merida; the first being near 5000 toises, and the second 5400 toises, about 3550 toises, or 44,000 English feet above the sea. Several mountains of this chain are perhaps equal in height to Mont Blanc; they are perpetually covered with snow, and frequently pour from their sides streams of boiling sulphurous water; and the highest peaks are elevated amid mountains of a little height, that of Merida being near the plain of Caracas, which is only 260 feet above the sea. The general height of the chain of the coast is from 3 to 800 toises; the Ne-vada of Merida is 23,500, and the Silla de Caracas 13,160, lowering towards the east, so that cape Codera is only 756 toises. This depression, however, is only of the primitive rock; for there are secondary calcareous mountains from cape Unara, which are higher than the granite, or foliated granite, and the micaeous schistus. These calcareous mountains, covered with calcareous stone, follow this chain on its southern side, and increase in height towards the eastern point of the continent. The chain of the coast is more steep towards the north than the south; and there is a dreadful perpendicular precipice of 1300 toises in the Silla de Caracas, above Caravello: the northern part of this chain being perhaps broken by the gulf of Mexico.

The second chain, which is that of Parima, or of the cataracts of Oinoco, was fearfully deemed passable till within 50 years, since the expedition of Ituriga and Solano. It leaves the Andes near Popayan, and stretching from west to east, from the sources of the Guaviaro, appears to extend to the north-east of that river, forming the cataracts of May-pura and Atures, in the Orinoco, lat. 5°, which are truly dreadful, and nevertheless afford the only passage yet opened towards the vale of the Amazonas. Thence this chain continues its course, with a breadth sometimes of 120 leagues, north-east to the river Caronas, but further to the east its continuation is little known. It has, however, been displayed by Don Antonio Santos, who, under the disguise of an Indian, passed from the mouth of the river Caronas, to the little lake of Parima, and observed this range between 5° and 5° 10' lat., when it is about 60 leagues broad, and divides the waters which fall into the Orinoco and Esquibo, from those that fall into the river of Amazonas. Further to the east, this range becomes still wider, descending south along the Mato, where the Dutch call a part of it Dorado, or the mountain of gold; as it is composed of bright micaeous schistus, which gives a similar character to a small hill in the lake of Parima. To the east of the Esquibo this range takes a south-east direction, and joins the granite mountains of Guana, in which is the source of the river of Surinam, and also of other rivers. This last group of mountains is very extensive, the same gneis is found at 3° 20' and 2° 14' N. This wide range is inhabited by a number of savage tribes, which are not much known in Europe. It no where seems to rise to an equal height with the northern range of the coast; the mountain of Duida, whose volcano is in lat. 3° 13' N., not far from Esmeraldas, being deemed the highest, and, by the measure of Humboldt, found 12,239 toises above the sea. This is a picturesque and majestic mountain, ejecting flames towards the close of the rainy season, and sitting near a beautiful plain, covered with palm-
trees and ananás. Towards the east it seems to terminate in broken rocks; but without any appearance of any secondary flata, the rocks being granite, gneiss, micaceous schistus, and hornblende flate.

The third chain of primitive mountains, that of Chiquitos, unites the Andes of Peru and Chile with the mountains of Brazil and Paraguay, and stretches from La Paz, Poto, and Tucuman, through the provinces of Moxos, Chiquitos, and Chaco, towards the government of the Moxo, and of St. Paul, in Brazil. The highest summits appear to be between 17° and 20°; the rivers there flowing to that of Amazon, or that of La Plata.

Between these three great ridges are three immense valleys; that of Orinoco, that of the river of Amazon, and that of the Pampas of Buenos Ayres, from 19° to 52° south lat. all opening to the east, but shut on the west by the Andes. The middle valley, or that of the Amazon, is covered with forelcs so thick, that the rivers along form roads; while those of Orinoco and Pampas are savannahs or grassy plains, with a few scattered palms; and so level, that sometimes for 800 square leagues there is no elevation exceeding eight or ten inches. In the northern plain the primitive rock is covered with limestone, gypsum, and freestone, while in that of the Amazon the granite every where appears. The general inclination is to the north-west, which, according to Humboldt, is the usual arrangement of primitive rocks. In the Andes petrifactions are uncommon, but there are sometimes patches of gypsum, and secondary limetone; while the range of Parima confines entirely of granite and other primitive rocks. But in the calcareous freestone of the northern ridges of the coal, Humboldt found many shells, seemingly of recent petrification, as they are close of the sea, now at the distance of nine leagues. In the plain of Orinoco are found petrified trees, in a coarse breccia. Granite forms the chain of Parima; but in that of the coal it is covered, or mingled with gneiss and micaceous schistus. It is sometimes stratified in beds from two to three feet thick, and sometimes contains large crystals of felspar. The micaceous schistus sometimes presents red gneiss, and fappa; and in the gneiss of the mountain of Avila green garnets appear. In the range of Parima there occur large masses of most brilliant tale, formerly imparting such reputation to the Dorado, situated between the rivers Esquicho and Mao, and other mountains, which like burnish gold, reflect the light of the sun, and have hence been denominated the shining mountains. Smeléit, or soft jad, is formed in islands; and Condamine discovered that hard jad, called Amazon fone. Schistose chlorite also occurs; and beautiful hornblende fible rises through the streets of Guiana, or S. Thome. Other substanccs are decomposed felspar or kaolin, primitive limetone and plumbago; and there are veins of quartz, which contain auriferous pyrites, and antimony, native gold, grey copper, and malachite. The copper mines of Aroa are alone wrought, and produce about 1,500 quintals yearly. Slate is rare, but sometimes covers the micaceous schistus; and in the northern chain there are rocks of serpentine, veined with bluish fesitate. The grunstein of Werner sometimes occurs in that ridge. Among the rocks called transitive by Werner, as connecting the primitive with the secondary, are trap, green flate, amygdaidel, and the schiitofe porphyry of that author, green with crystals of felspar. The secondary rocks are limetone, gypsum, argillaceous schistus, and freestone, or calcareous flate, with coarse breccia.

The eastern spurs of the Andes, according to Helms, a pracitical German mineralogist, who was employed for some years in the mines of Peru, sometimes present red and green granite, and gneiss, as towards Cordova, and Tucuman, but the grand chain consists chiefly of argillaceous schistus, or various kinds of thin flate, bluish, dark red, fesh colour, grey and yellow; on which, in many places, are incumbent flata of limetone, and large masses of ferruginous flate. No mountains, says this author, have been observed by him in Hungary, Saxony, or the Pyrenees, which are so irregular as the Andes, or broken into such alternate flubences, manifesting such prodigious revolution of nature. Amid the argillaceous schistus the metals sometimes occur in veins of quartz, sometimes in alluvial layers of sandstone, and iron sand. Near Poto are irregular beds of large bullets of granite; and the celebrated mountain, so rich in silver ore, is chiefly composed of a firm yellow argillaceous flate, full of veins of ferruginous quartz, in which are found some of the best ores. In passing the highest ridge of the Andes, between Poto and Lima, Helms still found argillaceous schistus, the predominant substance; sometimes with fleta of sandstone, sometimes with long extents of granite. Near the lake of Titicaca the Andes are of prodigious height, this being the centre of the chain, and also the summit parts. The French mathematicians, who visited the Andes, for measuring a degree of the meridian, have given a particular account of the occurrences that befell them on this occasion. Having divided themselves into two bodies, Don George Juan and M. Godin, at the head of one party, went to the mountain of Pambarama; and M. Bouguer de la Condaminne, and Don Ulloa, with their allies, ascended the highest summit of Pachinchica. Both parties suffered from the extremity of the cold, and the impietuosity of the winds, which on these heights blow with incessant violence. They had commonly, in other uncomfortable situations, pitched a field-tent for each company; but on the top of Pachinchica this was impracticable, and they were under the necessity of contenting themselves with a very small hut, which, like all the other adjacent parts, was soon covered with ice and snow. The air on this summit was also so fubtile, as to render respiration very difficult. They generally kept within their hut; which they were obliged to do, on account of the intemperance of the cold, the violence of the wind, and the darkness occasioned by a thick fog. When the fog cleared up, the clouds defended towards the earth; and surrounded the mountain in such a manner.
manner as to represent the sea, with the rock on which they were situated like an island in the centre of it. When this happened, they heard the horrid noises of the tempests, which then discharged themselves in Quito, and the neighbouring country. They saw the lightnings issuing from the clouds, and heard the thunder rolling far beneath them; and whilst the lower parts were involved in tempests of thunder and rain, they enjoyed a delightfule serenity; the wind abated, the sky was clear, and the enlivening rays of the sun moderated the severity of the cold. But when the clouds rose, respiration became difficult, and snow and hail fell continually, and the wind refumed its former violence; so that by this operation, left their shoe should be overturned, and blown down the precipice, on the edge of which it was built, or that they should be buried under it by the accumulation of ice and snow. Their fears were increased by the dreadful concussions occasioned by the fall of enormous fragments of rocks, and the velocity with which the wind moved dazzled their sight. For their greater security they fastened the door of their hut with thongs of leather, and stopped every crevice on the inside; and they also completely covered it with straw; but all this precaution was not sufficient to prevent the wind from penetrating. They had no other light in this confined state, but that of a lamp or two, which they kept burning; but notwithstanding the smallness of their habitation, and the heat of the lamps, the cold was so intense, that each of them was obliged to have a chaffing-dish of coals. Such were the effects of the severity of the climate, that their feet were swollen and fo tender, that they could not even bear the heat, and walking was attended with great pain. Their hands were covered with chillblains; their lips were swelled and chopped; so that every motion, in speaking or the like, drew blood. Their common food in this inhospitable region was a little rice boiled with some flesh or fowl, which was procured from Quito; and instead of water, their pot was filled with ice; and whilst they were eating, every one of them was obliged to keep his plate over a chaffing-dish of coals, to prevent his provisions from freezing. When they attempted to augment their inward heat by drinking strong liquors, they felt no strength in them, nor were they any greater preventive against the cold than common water. The Indians, who attended them, could not by any encouragement, or threat of punishment, be prevailed upon to continue with them. Upon their first feeling the rigour of the climate, they immediately prepared for departure; and such was the inconvenience resulting from this circumstance, that they were in danger of being confined in their hut, by the masses of snow, which it was the business of these Indians every morning to remove. Such, and similar to these, were the difficulties and inconveniences with which they encountered during the whole progress of their occupation in forming triangles for measuring the degrees of the meridian. D. Juan Don Ulla's Voyage to South America, by Adams, vol. i. p. 214, &c. Journal de Physique, Melior An. ix. July, 1851. Helms's Tagebuch, &c. ; or Journal of a Journey through Peru, from Buenos Ayres to the great river La Plata, by Potofio to Lima, &c. 8vo. Dreden, 1798. Pinkerton's Modern Geography, vol. ii. p. 673, &c. ANDESAGE, a town of France in the department of the Lot and Garonne, and chief place of a canton, in the district of Villeneuve d'Agen, 10 miles north-east of Agen. ANDETHANA, in Ancient Geography, Epiphaniach, a town of Gaul, belonging to the Treveri, in Belgia prima, between Augufa Treverorum to the east, and Orobannum to the west. ANDETRIUM, (Phlay), ANDRETRIUM, (Strabo), AN-DETRIUM, (Dion Cassius), and ANDRETRIUM, (Ptolemy), a town of Dalmatia, situated on an almost inaccessible rock, surrounded with deep valleys and rapid torrents; where it appears to be the capital now called Dijia. N. lat. 43° 20'. E. long. 17° 40'. ANDEVALLO, in Geography, a small country of Spain, in Andalusia, on the frontiers of Portugal and Spanish Extremadura. ANDEZIEU, of DIDERZIEU, a town of Poland, in the palatinate of Cracow; 52 miles south-west of Cracow. ANDIANITES, a people, according to Ptolemy, of Lower Pannonia. ANDIATORQUE, a lake of Canada, in North America, near New England. ANDILLA, a town of Spain, in the province of Valencia, six leagues from Alicarn. ANDIRA, or ANGELIN, in Botany, G. Pison; a tree in Brazil, the wood of which is hard and proper for building. Its bark is of an ash colour; its fruit is of the shape and size of an egg, green at first, but growing blacker by degrees. It is covered with a hard rind, including a grain, or yellowish kernel, of a bitterish, astringent taste. They pulverize this nut, and give it for worms; but not more than one scruple; for more than this is said to be poisonous. In the Linnaean syslem by Gmelin, andira is a genus of the diadelphus decandria class and order; the characters of which, are, that the calyx is uncolducted almost entire, or quinverted; the corolla has two petals; and the fruit is a dry pod, ovate, furrowed, and containing a single seed. ANDIRA, in Zoology, is an animal called also andira-guaco, a kind of bat in Brazil; the largest of which are as big as our pigeons: they call them horned bats, from a fort of excrecence, or plant body, above their beak. Some of these are very dangerous; for they get into chambers in the night, and so subtilly open the veins in the feet of those who are in bed, that they are not perceived but by the flowing of the blood, which is difficult to be stopped. The inhabitants reckon the tongue and heart of that animal among poisons. The andira is the vesperstumbio spectrum of Linneus. See SPECTRE. ANDIRIAR, in Botany, the name by which Raphae, and some others, express the FABACO. ANDLAU, in Geography, a town of France, in the department of the Lower Rhine, situate on a mountain, and defended by a castle. It was formerly an imperial free city, and has a nunnery, instituted for ladies of noble extraction. It is 18 miles south-south-west of Strauburg. N. lat. 48° 24'. E. long. 7° 24'. ANDLAU is also a river of France, which rises near the town of the same name, and discharges itself into the Ill, near Fegerheim, in the department of the Lower Rhine. ANDOCIDES, in Biography, an Athenian orator, was born at Athens, the first year of the 78th Olympiad, or 468 years before Christ. He was attached to oligarchy, and not to popular government. When Alebiades was tried for demolishing the statues of Mercury, Andocides was suspected, and he escaped by acknowledging the crime, and accusing his accomplices. The style of his orations is plain and simple, and almost entirely delittute of ornament. Four are extant, of which the two first are vindications of himself; the third is on the subject of peace with the Lacedemonians; and the fourth against Alebiades, who had sent him into exile. They were first published with those of Antiphon, &c. by Aldus Manutius, in folio, at Rome, in 1513; and afterwards in a more splendid manner, in 1575, by Henry Stephens. The orations of Antiphon, Andocides, ...
ANDOLOGENSES, in *Ancient Geography*, a people of Spain, according to Ptolemy.

ANDOMADUNUM, ANDOMATUNUM (Ptolemy), ANTIVAVUM, (Antonne), CIUTATS UNIUSUM, (Tacticus), now LUGUES, a city of Gallia Belgica, was a Roman colony, and appears, by many remains of antiquity, to have been considerable. It was situated on an eminence as the termination of Eruns imports. N. lat. 47°. E. long. 5°.22'.

ANDONY RIVER, in Geography, lies on the coast of Benin, in Africa, called from Cape Formosa, between the new and old Calabar rivers, in about N. lat. 4° 30', and E. long. 9° 55'.

ANDORA, a town of Italy, in Genoa, whose neighbourly produce good wine; two miles north-east of Ongella.

ANDORINA, in *Ornithology*, a name by which the Portuguese in the Brasilian savannah, more usually known by its Brasilian name tupaera.

ANDORINEPOPO, in *Ancient Geography*, a town placed by Ptolemy in Britain. Hartwell calls it Andurfe.

ANDORNO, in Geography, a town of Italy, in the principality of Piemonte, and lordship of Vercelli, 25 miles north-west of Vercelli.

ANDORRA, a town of Spain, in Catalonia, situate in a valley of the same name, which is surrounded by the Pyrenees, and formerly made a part of the county of Foix, with which it joins; the valley is fertile, and watered by a small river, called Belin, that runs into the Segura, three leagues north of Urgel.

ANDOSIIA, a town of Spain, in Navarre; two leagues from Cauter. Perre.

ANDOSINI, in *Ancient Geography*, a people placed by Polybius, in Spain, towards the Pyrenees.

ANDOVER, in Geography, a borough town of England, in the county of Hampshire, pleasantly situate near the river And. It has a manufacture of shalloons, and a considerable trade in malting. Its market is on Saturday. It is governed by a bailiff, steward, recorder, ten other persons of approved reputation, and 24 burgesses. It sends two members to parliament. A navigable canal is making from this town to Southampton; it is 67½ miles from London, and 12½ from Salisbury. N. lat. 51° 30'. W. long. 1° 50'.

ANDOVER is also a large and thriving town of North America, in Essex county, Massachusetts, containing two parishes, and 2803 inhabitants. It has a paper mill and powder mill and an excellent academy, called "Philips Academy," from the name of its founders. This town lies about 20 miles west of Newbury port, and about 22 north of Bolton.

ANDOVER is also a town of Hillborough, in New Hampshire, incorporated in 1779, and containing 645 inhabitants.

ANDOVER is also the south-western most township in Windham county, Vermont, situate 52 miles north east of Bennington, and containing 1275 inhabitants.

ANDOVER is also a place in Suffield county, New Jersey, near the source of Pequell river, five miles south-west of New-Town, and 16 in the same direction from Wallack.

ANDOVILLE, a town of France, in the department of the Mayenne, a chief place of a canton, in the district of Laval, near the river Eude, six miles north of Laval.

ANDRAE, in *Ancient Geography*, a town of Aisia Minor, placed by Ptolemy in Cappadocia, in the prefecture of Chamaene.

ANDRACHINE, in Botany, *Telephoides* of Tournefort, a genus of the *arum conica* (pentandria trigyna, Ginchi's Linnaeus) class and order; of the natural order of *trigidae* and *trigidae superior* of Junius; the characters of which are, that it has male and female flowers; in the former the calyx is a five-leaved, equal, marooned petalium; the corolla has five petals, emarginate, longer, and shorter than the calyx, the nectary has five leaves, umbilic, herbaceous, one within each petal, and less than it; the stamina have five filaments, small, inserted into the tube of each style, and simple anthers; in the latter the calyx is a five-leaved, equal, permanent petalium; the corolla has no petals, the nectary as in the male; the pistillum is a germ superior and globose, fleshy three, filiform, and 2-pointed, the stigma globose; the *pericarpium* is a capsule globulo-trilocular, three-celled, cells inturned, of the size of the calyx, (tricoccous calicis, G.) the seeds are in pairs, rounded on one side, triangular and obtuse on the other. Obf. It is related to elata.

Art. 2. the *symb. telephoides* of Dill and Buxchglanz of Bocey, proconsul, and herbaceous. This is a low plant, with branches trailing on the ground; the leaves are round, ovate, and of a sea-green colour; found wild in some parts of Italy, and in the Archipelago, whose seeds were sent by Tournefort to the royal garden at Paris; and cultivated in Kew garden by Dr. Sherard, in 1732. As it has no great beauty, it is only preferred in botanic gardens for the sake of variety.

Art. 3. the *fruticosa* and *latifolia* of Linn. Martiss. erect and shrubby. It rives 12 or 14 feet high, with branches bearing spear-shaped, pointed, smooth leaves; the flowers are small, and of an herbaceous white colour; some flowers are male, with one-leaved round flat obtuse calyx, a little quinquifid, others on the same plant female, five-parted; a native of the East Indies, in China, and also of La Vera Cruz, in New Spain. 

Art. 4. the *arborea* of Miller, with arborect form, and leaves ovate, obtuse, hoary underneath. This has a strong woody stem, which rives more than 20 feet high, with branches from which proceed oval blunt leaves hoary on the under side, and furrowed on the upper, and placed alternately on the branches. This species grows naturally at Campbanchy, and the seeds were sent from thence to England by Dr. Houtain. There is another fort, raised from seeds, sent from Jamaica; the leaves of which resemble those of the laurel, except that they are much larger; this has not yet flowered in Europe.

Culture. The seeds of the first species may be sown on a moderate hot bed in March; and the plants, which spring up in about a month, may be removed, each into a small pot, and plunged into another moderate hot bed; in mild weather they should have plenty of air and be often watered; in June they will produce flowers, and the seeds will ripen in August and September, after which the plants decay. The second and third species are very tender plants; their seeds should be sown in pots, which must be plunged in a hot bed of tanner's bark and watered; when the plants come up, each of them should be planted in a small pot, plunged into a warm bed, and they should be shaded till they have taken fresh root, and afterwards in warm weather exposed to the air, but constantly kept in the back stove.

ANDRACHNE. See A r h y s .

ANDRADA, Diego de Payva d' or Andradius, in *Biography*, a learned Portuguese divine of the 16th century, was born at Coimbra, distinguished in that University, and sent by Sebastian, king of Portugal, to the council of Trent, where he was celebrated for the understanding of a
AND

deep theologian, and for the tongue of an eloquent orator. During the session of the council he wrote a "treatise," entitled, "Orthodoxarum Explicationum Libri Decem," in answer to an attack upon the Jesuits by Chemnitz. This was answered by Chemnitz. Andreada prepared an elaborate rejoinder under the title of "Defenso Tridentine fidelis," or a defence of the Catholic faith, &c. first published in 1602. at Lisbon, in 1578, and afterwards at Ingolstadt, in 1582. Andreada published also seven volumes of sermons, although a champion for orthodoxy, he had the candour to allow that the heathen philosophers might be saved. Gen. Dict.

ANDRA, Francis, historiographer to Philip III. King of Spain, was the brother of the preceding Andreada. He wrote "The History of John III. King of Portugal," in the Portuguese language; which was published, in 1602., at Lisbon, in 1535.

ANDRARIA, in Ancient Geography, a town of Italy, in the vicinity of Podotinum.

ANDRAGIRI, or GUDAVIRI, in Geography, a province and town in the island of Sumatra. The town is in the middle of the island, and belongs to the Dutch, who have built a fort for its security.

ANDROMET, ANDRAMIT, or ANDRAMITI, a town of Natolia, in Turkey, in Asia. The Turks call it Palament. See ANDRAMITIUM.

ANDRAPANAM, in Ancient Geography, a town of Asia, in India, arrived by Ptolemus to the Indolethians.

ANDRAPODISMUS, in Ancient Writers, the selling of persons for slaves.

Hence also andrapodisthes, aw-handres, a dealer in slaves, more particularly a kidnapper, who steals men or children, to sell them, a crime for which the Thessallians were noted.

ANDRAPODICAPELLI, Mancipiorum Vindictores, in Antiquity, dealers in slaves. They cleansed the skins of the slaves with balsam prepared with barley and other kinds of meal, to which nitre, according to Galen, was occasionally added. They whipped them lightly with cords, and then smeared them with oil, and used various other arts to make them sleek and plump, and to give them an appearance of health. They were also called Mangones, and the art Mangonciam. Calcelli Lexicon.

At Athens, several places in the forum were appointed for the sale of slaves. Upon the first day of every month, the merchants brought them into the market, and exposed them to sale, whilst the crier, standing upon a stone erected for that purpose, called the people together.

ANDRARUM, or Anderum, in Geography, a town of Sweden, in the province of Schonen; it is celebrated by Chrestianstad.

ANDRASTE, in Antiquity, one of the ancient bearers of the ancient Britons, supposed to have been the same with Venus or Dian.

ANDRE, Sr., in Geography, a town in the kingdom of Leon, in North America, near the mouth of Nafius river, which falls into the Gulf of Mexico.

ANDRE, a small river of France, in Britain, which runs into the Loire, at Nantes.

ANDRE, a town of Phrygia in Asia Minor.

Andre, Sr., in Biography, born at Dijon, the 15th of February, 1701, received his education at Montpelher, and in 1729 was admitted member of the company of surgeons, at Verailles, and appointed one of the surgeons to the king. He applied himself particularly to the study of the diseases of the urethra, and was expert in the application of bougies, on which he placed his principal dependence in thefe complaints, varying the ingredients of which they were composed, to make them more or less stimulating and corroding, as the circumstances of the cases required. In 1754, he published his "Differtations pour les maladies de l'uretre, qui ont besoin de bougies," 12mo. Paris, and in 1758; "Maniere de faire usage des bougies antiveneriques." Svo. also at Paris. For an account of other publications by this writer, see Eloy. Dict. Hist.

ANDREA, in Geography, a town of Africa, in Upper Guinea, about a quarter of a mile from the river Mefurado, and eight miles from its mouth; it contains about 40 or 50 houses; its chief riches are palm, wine, and rice; a trade is also carried on in ivory and slaves.

ANDREA ANDREANI, in Biography, an eminent engraver, was born at Mantua, and died A. D. 1625, at a very advanced age. Besides his own engravings, he executed many performed by other persons, and sold the impressions under his own name. He engraved only on wood, in a peculiar style, distinguished by the name of "Chiaroscuro," which is performed with two, three, or more blocks of wood, according to the number of tints required, which are dampened upon paper, one after another, so as to produce the effect of a washed drawing. The invention of this species of engraving was much prior to the art of this artist. His great merit as an artist, is acknowledged by all who are conversant with his prints. His drawing is excellent, executed with great spirit, and in a very matterly style. In the heads of his figures are characteristic and expressive, and he has displayed great judgment in the management of his various tints. His works are considered as admirable transcripts from the sketches of many of the greatest painters. Among his most finished prints may be reckoned, "Christ departing from Pilate," who is washing his hands; a large print lengthways, on two blocks, engraved from a bas-relief of Giovani Bologna; "An emblematical Print," representing the Christian, after his spiritual warfare in the present life, received as victorious into heaven, and crowned by Christ; "The triumph of Julius Caesar," from Andrea Mantega, the original of which is at Hampton Court; it is cut on 10 blocks of wood, dated 1568; "The entombing of Christ," from Raphael de Reggio; "The rape of the Sabines," from a group by Giovani Bologna. The fearcst of all his works is said to be "The pavement of Sicilia," after a drawing of Francesco Vanni. Strutt.

ANDREA DA PISA, a sculptor and architect, was born at Pisa in 1470. He built several castles, and the church of St. John, at Pisa; but his skill in architecture was greatly improved at Florence, where he enlarged and fortified the palace of the duke, by erecting many mansions in it, and surrounding it with magnificent towers and gates. On this account he obtained the right of citizenship. At the request of the duke of Athens, he made a model of a cruiser, which he intended to erect for retaining the Florentines; upon which they took the alarm, and expelled the duke; but Andrea passed the remainder of his days at Florence, cultivating the fine arts, such as painting, poetry and music, besides those which were professedly his own, and died in 1545, aged 75.

ANDREA DEL SARTO. See SARTO.

ANDREA MANTEGA. See MANTEGA.

ANDREA, in Biography, an apothecary at Hanover, was born 17th December, 1724. By the attention of his mother he was well educated in the languages and sciences; and in 1744 he visited Berlin, where
where he attended lectures on chemistry, anatomy, botany, and natural history. In the following year he inspected the various mines in Saxony, and proceeded through Liepzig, Halle, the Hartz, and Caffel to Frankfort, where he resided till the Spring of the year 1746. From hence he removed to the university of Leyden, and studied chemistry under Gauthiot, botany under Royen, and natural philosophy under Mulchenbrok. In the year 1747, he visited England, and returned to Hanover where he succeeded to his father's business, in 1751, and distinguished himself by his skill and diligence. He wrote many useful papers in the Hanoverian Magazine, and other periodical works, by which he gained considerable reputation and esteem; in 1761 he made a tour to Switzerland, the original of which was published in 1776, in a 4to. volume, with engravings; and in 1765 he was charged by government to examine the principal kinds of earth and marl in the electorate, and to publish a work on their nature and use, for the benefit of farmers, which appeared in 1789, under the title of "A Treatise on various kinds of earth in his Britannic Majesty's dominions, &c. and their uses in agriculture." In December 1791, he was attacked by an inflammation of the urethra, which at length terminated in his death, on the 1st of May, 1793. His writings and collections of natural history procured for him an extensive acquaintance with men of literature and science, and an admission into many learned societies. Gen. Biog.

Anaximenes, in Entomology, a species of Carabus. The thorax obicular, black, and glossy; wing-cases pale, with a black band in the middle. Fabricius. Inhabits Italy.

Anaximander, is likewise a species of Cimex, that inhabits the West Indies. It is red, except the antennae, tincted of the legs, beak and wings, which are black. Linnaeus. The cimex rubicollis of Muf. Lud. Ulr., and cimex thoracis nigro of Thumberg are supposed to be varieties of this species.

Andeanoffski-Ostrove, or Andenovian isles, in Geography, a cluster of islands, between Asia and America, which in a general view may be regarded as the same with the Fox islands, being the western part of the same range; or the Andrenovian isles, in a more limited sense, may be considered as forming a group of six or more isles, about 500 miles to the south-east of Bear Island. These, in both respects, are a kind of cluster of the American promontory of Alaska, and in the most recent maps of Russia they are comprehended under one general name of Aleutian isles.

Andreas, John Valentine, in Biography, a Lutheran clergyman, was born in the year 1686; became dean of Vayingen, chaplain to Everhard Ill. duke of Wurttemberg, abbot of Bebenhausen, and halfly of Adelberg; and died June 27th, 1654. His principal works are "Mythologia Chirithiana;" "De curiositati pernicie;" "De religioni reipublicae Chrithi, in Germania;" "Suidia rei chritianae et literaria;" "Theoplius, five de religioni christiana colenda;" "Menippeus prior et posterior;" "Peregrinus in Patria;" "Fama Andreae relores;" which contains the life of his grandfather, and various poems in honour of Augustus, duke of Wolfenbuttle, inserted in a book, entitled "Selenia Augustalina." Some have represented John Valentine Andreas, as the founder of the Rothercruins. Gen. Biog.

Andreas, Valerius, learned Brabantian, was born at the village of Debachel, November 25th, 1688. He studied the Greek language at Antwerp, under Andreas Schottus, and the Hebrew under John Hay, a Scots Jefuit; and his proficiency in the latter language was such that he was invited to be professor of it at Louvain. He afterwards applied to the study of the law, and in 1641 obtained the degree of doctor. In 1665 he was appointed professor of the "Institute," and in 1668 librarian to the academy. His works are "Orthographia Latino, ab Aldo Manutio collecta, bene multis aucta: cum libello de ratione inter- punendo ac seconfundo notis;" "De Initis Collegium Bulli- dianum, duce vita et scriptis professo renjimo collemgi;" "De Lingua Hebrewica Lachma, antiquitate, dignitate, neceditate;" "Difertation de Toro et Sago;" "Topogra- phia Belgica." His principal work was "Bibliotheca Belgica, de Belgia vita scriptoribus claris," first printed in 1675; and afterwards with considerable additions in 1679. Gen. Biog.

Andreas, John, a famous canonist of the 14th century, was the natural son of a priest, and born at Magello, near Florence. He prosecuted his studies at Bologna, and particularly that of the canon law, under the professor Guy de Baff, who procured for him the degree of doctor, gratis. He was a professor at Padua, about the year 1350, and also at Pisa; but he acquired the greatest reputation at Bologna. He is said to have led a very aulterine life, maccinating his body with prayer and fasting, and lying upon the bare ground for 25 years successively, under a covering of bear-skin. He married a woman named Milantia, by whom he had a beautiful daughter, whom he called Novella, after the name of his mother, and who is said to have read lectures for him when he wanted leisure. Respect for his mother and affection for his daughter induced him to entitle his "Commentary upon the Decretals of Gregory Ixth," the "Novelle." Having lost his natural son Bonaccinotto, who published several books, he adopted a learned canonist, whose name was John Calderinus, and gave him his daughter in marriage. Andreas died of the plague at Bologna in 1348, after having been professor 45 years, and was buried in the church of the Dominicans. He was the author of several books, such as "A glossa upon the sixth book of Decretals;" "Glosses upon the Clementines;" "A Commentary in Regulae Sexi," entitled "Mercuriales," either because it was written on Wednesdays, (diei Mercuri), or because it contained his Wednesday's disputations. He also enlarged the "Speculum of Durant," in 1347. However he has been accused of great plagiarism. Gen. Diét.

Andreas, John, was born a Mahometan at Xativa, in the kingdom of Valencia, and succeeded his father as Alfauqui in that city. He was converted to Christianity by a sermon preached in the great church of Valencia, in 1451, and professing his faith was baptized, in memory of the calling of St. John and St. Andrew, by the name of John Andreas. Soon after his conversion, he became a priest and a public teacher, and was employed by king Ferdinand and queen Isabella, on a mission to the Moors of Granada, many of whom he induced to abjure Mahomet, and to assume the profession of Christianity. He was afterwards made a canon, and appointed to undertake the conversion of the Moors of Arragon; but the queen's death prevented the execution of this undertaking. However, he translated from the Arabic into the language of Arragon, the whole law of the Moors, that is, the alcoran, and its glosses, and the seven books of the Suni. He also wrote a work, entitled "The Confusion of the sect of Mahamed," for the purpose of exposing the follies of Mahometanism, which was published first in Spanish, has been translated into many languages, and is often cited by those who have occasion to write against the Mahometans, as Hoornbeek, Hottinger, and Schultetus. Gen. Diét.
AND

Andreas, Tobias, professor of History and Greek at Groningen, was born at Brunsfels in the county of Solms, in 1604. He studied at Herborn under Alcideus and his uncle Pictator, and afterwards resided seven years at Bremen. After his return to his own country, in 1628, he removed to Groningen, where he read lectures on all parts of philosophy, and obtained the appointment of tutor to the sons of Henry Alting, his patron, and afterwards in the family of the Prince Palatine. In 1631 he succeeded James Gebhardus, professor of History and Greek at Groningen, which office he retained till his death in 1676. He was distinguished by his attachment to Des Cartes, whom he ridiculated by his writings, both during the life and after the death of that eminent philosopher. He instituted a profession against Martin Schookius, professor of philosophy at Groningen, for accusing Des Cartes of atheism. The result was, that the accuser acknowledged Des Cartes's innocence, but was himself acquitted. His “Methodi Car- tellianae Asfertio,” was published in the year 1651. Gen. Diê.

Andreas, James, a famous Lutheran divine, was born at Waibling, in the dutchy of Wirtemberg, in 1528, and though of mean parentage, was encouraged in the profession of his studies first at Stuttgard and afterwards at Tubingen, where he connected theology and Hebrew with philosophy, and took the degrees of bachelor and master of arts; and in 1546 he was appointed minister of the church of Stuttgard; but upon the publication of the “Interim” he was obliged to retire to Tubingen, where he officiated as minister. In 1553 he took the degree of doctor of divinity, and was appointed pastor of the church of Gopping, and superintendent of the neighbouring churches. After performing several trusts that were devolved upon him, in order to promote the reformation from popery, he attended the diet of Worms in 1557, and was appointed one of the secretaries at the conference at Worms between the papists and the divines of the Augultan confederation. In 1560 he attended the diet of the empire at Augsburg; and after his return from Paris, in 1561, he was made chancellor and rector of the university of Tubingen. In 1565 he established a church at Hangenau, an imperial city, where he preached many sermons on the principal points of the Christian religion, which were afterwards printed. He took several journeys, in order to effect an union of the churches of the Augultan confederation, and engaged in ineffectual conferences with Beza and others, with a view of terminating theological disputes. His last public act was a conference at Baden, in 1559, with John Filiborus, who then inclined to Calvinism, but afterwards revolted to popery. He had a prelament of his death for some time before it happened; and upon its approach he expressed his constancy in the faith which he had affected, and in the exercise of a lively devotion he expired in 1569, in the 42d year of his age. Hischaracter and learning were held in high estimation; and the books which he wrote were so numerous, that it was said that he left 150 works upon various subjects. Gen. Diê.

Andreas, St., in Geography, a town of Germany, in the circle of Austria and dutchy of Carnithia, upon the river Lavant, with a bishopric suffragan of Salzburg; 15 leagues east of Clagenfurt.

Andreasberg, a town of Germany, in the circle of Lower Saxony, and principality of Grabenhagen, having in its environs some considerable iron-mines, 12 miles from Goslar, and 12 from Northaum.

Andree, Yves-Mary, in Biography, a French Jesuit, was born in 1675, at Chateaulin, in the county of Cornouailles. Having occupied the chair of professor of royal of mathematics at Caen, from 1726 to 1729, when he was 84 years of age, and enjoyed a repose of four years, he finished his laborious life in 1733. He was not only a good mathematician, but well acquainted with other branches of learning; and he also wrote elegant verses. Of his "Elly on the Beautiful," written in French, a new edition was given in a collection of his works, published in three volumes, 12mo in 1766. The subject is treated with perspicuity of method, strength of argument, and dignity of style. Gen. Biog.
and he was also praised by Queen Anne, of Bretagne, whence he styled himself, "Poeta reginis ac reginae." Andreinius was celebrated by many of his contemporaries as the first poet of the age, and as having contributed in an eminent degree, to promote literature in France. Eufebius, however, though he praised him when alive, gives an unfavourable account of his talents and morals after his death. He changed him with licentiousness of manners, and with a tumultuous and quarrelsome disposition. Nevertheless he obtained a high degree of reputation as a professor and writer till the time of his death, which happened at Paris, in February, 1488; and his memory was honoured with elegies, inscriptions, &c. Vossius compares the poetry of Andreinius, which consisted of sonorous verses and pompous expressions, without much meaning, to a river of words with a drop of sense, and Eufebius contends the grant of this drop. Most of his poems have been infected in the first volume of the "Deliciae Posthumae Ital." They chiefly consist of elegies, eclogues, and panegyrical pieces on various occasions. He also wrote moral and proverbial epistles in prose. Gen. Dict.

ANDRENA, in Entomology, one of the new genera in the Fabrician arrangement, containing, for the most part, of such insects as belong to the Apiis genus in the family of Linnæus. The tongue is trident, or three-cleft, lip cylindrical, and on each side two membranaceous bristles; antenna filiform. Fabricius. In the Entomologia Systematica of Fab. are thirty-one species of this genus. viz. ceruleolens, rubipes, spiralis, coriacea, labica, florca, metallica, zoea, cyanacea, marginata, helvola, bicolour, tricolor, curvipes, cineta, frigata, nigrita, fasicata, zonata, circulata, pilipes, carbonaria, hirfuta, hirtipes, histerholaidis, gulo, bidentata, nigricornis, viricets, cigalata, and fuscicenitis, which see respectively.

ANDRENEH, in Geography. See ANDRENA.

ANDRENOVIAN ISLES. See ANDRENOVIAN.

OSTROVA.

ANDRES, or ANDERO ISLAND, is situated south-east by east from Cape Gracias a Dios, the farthest point easterly of the province of Honduras, not far from St. Catherine's, or Providence Island, to the west-south-west, in N. lat. 22° 39', and W. long. 61° 40'.

ANDRES, a town of Asiatic Turkey, 60 miles east from Angura.

ANDRETTA, a town of Italy, in the kingdom of Naples, and Principato Ultra, six miles north of Conza.

ANDREW, in Biography, an apostle of Christ, was born of Jewish parents at Bethsaida, in Galilee. The name of his father, who was a fisherman of that town, was Jonas; and both he and his brother Peter followed that occupation. John Bapt, who was the herald of Christ, and who introduced him to the notice of the Jewish people as the promised Messiah, pointed him out to Andrew and Simon Peter, under the emblematic appellation of the Lamb of God; upon which they accompanied him to the place of his residence. Andrew seems to have been the first disciple of Christ; for he underwrote the sacrificial allusion of John, and said to his brother, "We have found the Messiah." John i. 35-41. He was afterwards chosen by Christ as one of his twelve apostles. To the brief account given by the evangelical writers of this apostle (Matt. iv. 18-20. Mark i. 16-18. i. 29. xii. 20. John vi. 7. xii. 20-22.) tradition has added several particulars of his certain authenticity. Eusebius relates, (Eccle Hist. lib. iii. c. i. p. 72.) that, when the apostles arranged the objects of their mission for the propagation of Christianity, Andrew made choice of Scythia. Other accounts are less worthy of credit than this.

"The Acts of the passion of St. Andrew," which mention his martyrdom at Patre, in Achaia, and said to be written by the priests of Achaia, are preferred in Surius's History of the Saints, and approved by Baronius, Bellarmine, and others of the Romish communion; but they are rejected by the best critics as spurious. The ancients, says Dupin (History of the Canon, &c. vol. ii. p. 140.), knew no other acts of St. Andrew besides those which had been corrupted by the Manichæans, mentioned by Eusebius, (Eccle Hist. lib. ii. c. 25.) Philostratus (Heres. 87.) Epiphanius (Heres. 47. n. 1. Id. 61. n. 1. Id. 63. n. 2.) and Angullus (2d conf. Manicheos.) and which pope Gelasius has placed among the apocryphal writings. This work was not cited till the seventh century; and neither its doctrine nor language agrees with those of the early ages. Besides, these Acts of St. Andrew are not found in any of the ancient catalogues of the sacred books, nor are they appealed to by any Christian writers, nor read in any of their assemblies, but on the contrary expressly condemned as an impious forgery by every one who has mentioned them. As they contained some doctrines which were favourable to the Manichæans, Encratites, Apotætists, or Apollinarians, and Origenists, it is no wonder that they should have esteemed this apocryphal piece above other scriptures. The "Gospel of Andrew," and other books that have been factioned by his name, belong to the same class of apocryphal writings. The relation of those who say that he was crucified on a cross in the form of the letter X, hence vulgarly called St. Andrew's cross, or on an olive tree, which others have ascribed, is entitled to no credit; nor indeed is it certain that he was crucified. According to Jerome (Adv. Vigil. p. 22.) his body was removed from St. Luke's to Constantinople in 357. The accounts of this apostle that are given by Gregory of Tours in the fifth century, by Nicephorus of Constantinople in the 9th, and by Nicephorus Callinicus in the fourteenth, contain many fabulous particulars. The legend of Gregory, therefore, will claim no regard; which informs us, that dreams of oil flowed from the tomb of this saint on the anniversary of his martyrdom, and sometimes swelled to the middle of the church. Dupin, ubi supra. Jones's Canon, vol. i. p. 145—187. Fabr. Cod. Apost. Nov. Tell. p. iii. p. 526.

ANDREW, Bishop of Cæsarea, in Cappadocia, lived, according to Cave, about the year 500. He wrote a commentary upon the book of Revelation, prefacing it with an exhortation of the book, for which he was accused by the authorities. He was of Cyril of Alexandria, Bishop of Ephesus, Methodius, and Hippocrates; and reducing it into 24 larger, and 72 smaller sections. He appears to have received as authentic all the books of the New Testament which we receive; he mentions the symbols of the four evangelists, viz. the lion for John, the calf for Luke, the eagle for Mark, and the man for Matthew. After citing some opinions with regard to the period of about a thousand years, mentioned in this book, he considers it as denoting the time of the preaching of the gospel, or the time of the gospel dispensation. Cave. Hist. Lit. tom. i. p. 467. Fabr. Bib. Græc. tom. vii. p. 791. Lardner's Works, vol. v. p. 240—252.

ANDREW, bishop of Samoëtana, was an intimate friend of Theodoret, and flourished in the fifth century. About the year 429 he was appointed by John, bishop of Antioch, to refute, on behalf of the eastern bishops, the "Anathemas" of Cyril. Under the pretence of illness he declined attending at the council of Ephesius; however, he vigorously opposed the Nestorians, and for many years renewed his hostilities against Cyril. Some curious extracts from his first book against Cyril are found in Cyril's "Apologias for
AND


Andrew, bishop of Crete, was a native of Damascius, and flourished at the close of the seventh and beginning of the eighth century. Cave places him about the year 635. The early part of his life was spent by him as a monk of Jerusalem. Theodoret, patriarch of Jerusalem, invited him to attend the sixth general council of Constantinople; and he afterwards copied the acts of that assembly against the Monothelites. He was appointed bishop of Crete, and probably remained in that see till his death, about the year 720. He wrote several homilies, which are extant; and which, according to Mosheim, (Ecc. Hist. vol. ii. p. 174.) are delectable of true piety and eloquence. They were collected, and published in folio by Francis Combelsius, at Paris, in 1644. Cave, Hill. Lit. vol. i. p. 582. Fabr. Bib. Grec. lib. v. c. xii. § 2. tom. x. p. 121.

Andrew, John, secretary of the Vatican library, was employed under the popes Paul and Sextus IV. When printing was first introduced into Rome, in reviving MSS., writing prefaces and dedications, and correcting the press. Cardinal de Cusa, who had been his school-fellow, gave him the bishopric of Accia in Corsica; and pope Paul II. afterwards appointed him to that of Aleria in the same island, where he died. He published an edition of Livy, and of Aulus Gelius, printed at Rome, in folio, in 1469; of Herodotus, in 1473; and of Strabo, printed at Venice, in folio, in 1472. He was also the editor of the Epistles of Cyprian, and of the works of St. Leo. Nouv. Dict. Hist.

Andrew, prebendar of Ratihon, was an historian of the 14th century, and flourished under the emperor Sigismund. He wrote in Latin "A Chronicle of the Dukes of Bavaria," published at Ansborg; and "A History of Bohemia," in seven books. His countrymen called him a second Livy. Volf. de Hist. Lat. lib. iii. c. 5.

Andrew I. king of Hungary, was a prince of the bloodroyal, and eldest son of Ladislaus the Bald. When king Peter was restored in the year 1044, he was obliged to take refuge in Russia; but the idolatrous Hungarians promised to kill Peter, and to expel all foreigners, provided Andrew would abolish the Christian churches. The compact was fet; and, after a great slaughter and plunder, Andrew was placed on the throne in 1047; instead of Peter, who was imprisoned, loft his eyes, and soon died. Andrew, however, in violation of his promise, obliged all his subjects to profess Christianity. After having settled his disputes with Albert of Austria, he invited his brother Bela, with his family, to settle in Hungary, and assigned him a third part of his dominions. When the emperor Henry III. invaded Hungary, he was reduced to such straits by Andrew and Bela, that, in order to avoid total destruction, he entered into a treaty, of which it was one condition, that the daughter of Henry should be married to Solomon, the son of Andrew. This son was five years old, and he was then crowned; but, fearing that his brother Bela would disturb the succession, Andrewsent for him, and instructed two of his confidential servants to act. "I shall oblige him," said the king, "a crown, the symbol of the royal authority, and a sword, that of the church. If he choses the former, militantly put him to death; if the latter, let him live." An officer, who overheard this order, whispered to Bela, "chafe the sword." Accordingly he took the sword, and his brother Andrew was satisfied; but Bela soon after retreated to Poland, and came from thence at the head of an army to dethrone him. Andrew was protected by the emperor; but, meeting his brother on the banks of the Tefts, he was defeated, abandoned by his own men, and killed in the pursuit, A. D. 1059. Mod. Un. Hist. vol. xxxii. p. 107.

Andrew II. king of Hungary, was the second son of Bela III. Having occasioned a rebellion against his elder brother, he was defeated by his army, and, in endeavouring to make his escape, taken prisoner, and brought to Emeric, by whom he was freely pardoned. From this time his sentiments were changed, that he became a steady supporter of the throne. After the death of his nephew Ladislaus, Andrew succeeded, and was crowned by the universal consent of the fathers. During the first twelve years of his reign he enjoyed unmitigated peace; but when pope Honorius III. ordered a new crusade to be preached, Andrew resolved to make an expedition into the Holy Land. He proceeded to Constantinople; but there he heard that during his absence a tragical event had occurred in his kingdom. The government had been entrusted to Banchanus, one of the nobles, and it was administered to universal satisfaction. But the wife of the governor, who was very beautiful, was debauched by Queen Gertrude's brother, who visited her during the king's absence, and the queen was accessory to the defilement. The injured lady informed her husband of this atrocious act; upon which he revenged himself by slaying the queen; and, rushing out into the street with his bloody sword, he published his wrongs, and the revenge he had taken; declaring, at the same time, that he would not decline a trial, but go immediately to Constantinople to receive the sentence of the king. Andrew acquitted him, and ordered him back to his government. At the trial the accusation against the queen was found to be just. Banchanus was acquitted, but his family was ruined by the resentment of the king's sons. Andrew transported his troops into Syria, and displayed his courage in some conflicts with the Saracens; but, being weary of the expedition, he determined to return home, though he was threatened with excommunication by the patriarch of Jerusalem. He proposed, however, to leave one-half of his troops in Palestine, under the command of the duke of Austria, and with the other half he was allowed to return into Hungary. Accordingly he set sail on board the Venetian fleet, with a variety of precious relics, and with the title of the " Hierofolymitan;" and, in his visit to the prince of Elia, by whom he was honourably entertained, he fell in love with his daughter, married her, and took her with him into Hungary. The remaining period of his reign was devoted to the business of healing the discontents of his subjects, and forming a system of legislation. Besides other measures which he adopted, he was the author of a famous decree, which confirmed and augmented the privileges of the nobility, and allowed them to take up arms in their defence, if he or his successors attempted to abridge them: a stipulation nugatory against a powerful monarch, and which has answered no other purpose than that of rendering the arisocracy less a nation, and the body of the people slaves. Towards the end of his reign the Tartars made some successful inroads into Hungary. Andrew, having reigned 31 years, died in 1255, and left the kingdom to his eldest son Bela, to whom he had ceded the sovereignty before his death. Mod. Un. Hist. vol. xxxii. p. 120-123.

Andrew III. king of Hungary, was the grandson of Andrew II. and being born and brought up in Venice, obtained the surname of "Venetian." On the death of Ladislaus in 1290, he succeeded to the throne, in opposition to a number of competitors, by the unanimous consent of the Hungarians. In his way from Italy through Austria he was detailed.
detained by Duke Albert; and obtained a release by promising to espouse Agnes, the duke’s daughter. But in the year after his ascension he declared war against Albert, and laid waste the country, till at length a peace was obtained by the intercession of the prelates. Upon his return to Hungary, Andrew found his kingdom in a dismembered state; the pope and many of the ecclesiastics and nobles having acknowledged the right of Charles Martel, who, in consequence of their invitation, had set out for Hungary with his wife and fan. Charles Robert, on christening, was an infant. The majority of the Hungarians were attached to Andrew; but as the party of Charles was very numerous, and Andrew having no children, Charles continued in possession of part of Hungary for several years without opposition. The two rival kings are said to have both died in the same year, 1291. Charles, having gone to the jubilee at Rome, died at Naples. Andrew died at Buda, and, leaving no male issue, the line of St. Stephen terminated in him. Mod. Un. Hist. vol. xxxi. p. 120.

Andrew, Knights of St. Andrew, or the Thistle, commonly called the Order of St. Andrew, in Scotland; according to John Lesley, bishop of Ross and others, was instituted by Achaicus, king of Scots, in memory of an appearance in the heavens of a bright croft in fashion of that whereon St. Andrew suffered martyrdom, and seen by that king the night before the battle which he fought with Athelstan, king of England, over whom prevailing, he went in solemn procession to the kirk of St. Andrew, to thank God and his apostle for the victory; promising that they and their posterity should ever have the figure of that croft in their ensigns and banners. Favin, in his Theatre of Honour, relates it to be instituted upon the famous league, offensive and defensive, made between Achaicus and Charlemagne, king of France; to preserve the memory of which alliance, Achaicus added the treasured of fleurs de lys to the lion, the then royal arms of Scotland, and took for device the thistle and rue, which he composed into a collar of his order; and for his motto, Pour nos defence. Menenius makes these the symbols of two different orders; one of the Thistle, whence the Knights were so styled, and the motto, Nemo me impune lacessit; the other called Scottum Ratus, or Garland of Rue: nevertheless, to both collars hung one and the same jewel, that is, the figure of St. Andrew bearing his crofts. Their solemn meeting was annually on St. Andrew’s Day, in the church of the town dedicated to his name; at which the knights, thirteen in number, in allusion to our blessed Saviour and the twelve apostles, were richly habited, and wore their parliamentary robes, having thereon embroidered on their left shoulder an array round charged with a fuller argent, St. Andrew’s crofts enflled in centre, with a crown composed of fleur de luce or. The sudden death of James V. of Scotland, the rebellion against Queen Mary, and the troubles which ensued in that kingdom nearly extinguished the order, which continued to be neglected until it was revived by King James II. of England, who, on the 29th of May, 1687, allowed his warrant for letters patent to be made out and passed per fallum, under the great seal of Scotland. In consequence of this revival several new knights were made, and the order continued to flourish during the remainder of that king’s reign; but on his abdication, and the advancement of King William to the throne, the order was again diffused.

Queen Anne, by her letters patent, bearing date at St. James’s, 31st Dec. 1703, revived, continued, and re-established the order; and ordained by the statutes, “that the number of knights should consist of twelve besides the sovereign, making in the whole thirteen, as heretofore; that the sovereign’s habit should be such as the sovereigns them-
AND

**Patronus Ruffin;** and in the middle an A. the initial of the empress Anne, who framed the statues, and asigned the habit of the order. The feast is held on the 30th of November. In 1793 it had 63 knights. The badge is fastened to a blue ribbon, and suspended from the right shoulder; but at fesitals is pendent to a collar of gold composed of square chains and roses.

**Andrew's Crofs,** is a badge worn in the hat by the people of Scotland, on the day of the feast of that Saint.

It consists of blue and white ribbands, disposed into a crofs, or faiter; and is intended as a commemoration of the crucifixion of St. Andrew, the tutelary Saint of Scotland.

**Andrew's St. in Geography,** an ancient town of Scotland, in the shire of Fife; and formerly the metropolis of the kingdom of the Picts. It is leated on an eminance, and commands an extensive prospect. N. lat. 56° 18'. W. long. 2° 37'. The legendary account of the origin of this city is as follows: St. Regulus, a Greek of Achaea, being warned by a vision to leave his native country, and to visit Albion, an illfated in the remotest part of the world, was instructed to take with him the arm-bone, three fingers, and three toes of St. Andrew. After a tempestuous passage he was shipwrecked on the coasts of Othelonia, in the territory of Hergulis, king of the Picts, in the year 370. The king, as soon as he heard of the disfalter, ordered the strangers to be refpeetfully received, and granted to the fain his own palce, near which he built a church, called St. Regulus. The place was then fyled Mucrofs, or the Land of Boars. St. Regulus changed the name to Kirkymont, and established the first Christian priefh of the country, called Culdees. This church was fupreme in the kingdom of the Picts, and un- gus the king ordained that the crofs of St. Andrew should come the badge of the country. In 518, after the con- quett of the Picts, the epifcopal fce was established at St. Andrew's, and the bishop was fyled, **"Maximus Scotorum Epifcopus."** It is faid to have been erected into an arch- biffhopric at the intercettion of James III. This fce contained the greteft part of the shire of Fife, with a part of Perth, Forfar, and Kincardine shires, and a very large number of parifhes and churches in other dioces.

The town of St. Andrew's was erected into a royal bo- rough by David I. in 1140, and its privileges were afterwards confirmed. The charter of Malcolm II. on a small piece of parchment, is preferved in the toboleh; and here are also deposited the silver keys of the city, which are delivered to the king if he fhoald visit the place, or to a victorious enemy. The axe, which in 1646 took off the heads of Sir Rt. Spot- woud, and other diftinguifhed loyalfaits, is fhewn in this place. St. Andrew's is now much reduced as to the number both of houses and inhabitants, the latter being estimated at about 2000. It is ftil decorated with magnificent relics of its ancient splendour. The principal of thofe is the cathedral, which was founded by bishop Arnold in 1161, but it was not completed till the year 1318. Its demotion, however, was efeected by John Knox and his followers, in 1559, in one day. The eafther end, with its two high pinacles, is complete; and one turret of the weft point yet remains, adorned with fome curious carved work in a peculiar fyle; but the pillars and fome of the arches of the fide aile, exhib- it a fpecimen of the pure Gothic, when it admited of very little ornament: the precinct of this church forms a common burial-place to the town. In the centre of the inclofure is a plain, square tower, of a very extraordinary height, different in its structure from the cathedral, and not unlike fome of the relics of Norman architecture in England. This is the tower of the chapel of St. Regulus, the body of which re- mains, but the inside chapels are demolished. The arches of the windows and doors are round, and fome exceed fo circles; whence we may infer the antiquity of the building. Some trace it to a very early period; but it is com- monly thought to have been founded in the eighth century, and efteemed the earlieft Christian church in Scotland. The priory was founded by Alexander I. in 1122; and the monks, who were canons regular of St. Augustine, were brought from Scone in 1140, by Robert, bishop of this fee. By an act of parliament in the reign of James I. the prior had precedence of all abbeys and priors; and on the feftival days wore a mitre and all epifcopal ornaments. The revenues of this priory were very considerable, being in mo- ney 2237L. 28s. 10d. besides large quantities of different forts of grain, and 480 acres of land. The ruins adjoin to thofe of the cathedral; and nothing now remains but the inclofure wall, which encroaches a large area, and one fingle arch, very much defaced. The inclofure extends from the cathedral to the shore. Above the harbour stood the collegiate church of Kirk-heugh, originally founded by Conflan- tine III. who is faid to have retired either from the world, and to have become a Culdee. The remains of the castle oc- cupy the fummit of a high eminance, which overlooks the coast. Separated from the town, by a deep chaffin, over which was a draw-bridge, and from the country by an impetu- ous sea, foaming over a rocky bed, this castle was juftly efpe- cted one of the strongest fortifications in the island. It was founded in 1451 by bishop Trail; and it was the refi- dence of cardinal Beaton in the zenith of his power and prosperity; but with all his attention to render it, as he con- ceived, impregnable, it was not of fufficient strength to de- fend an ambitious ruler against the rage of an exasperated people. In this fortrefs the cardinal was fparing by Nor- man Leflie, with 15 attendants, in 1546, and affaffinated in the midst of his numerous retainers. In 1547 the castle, po- fefled and guarded only by 150 men for five months, was at last reduced and demolished. The death of Beaton led to the downfall of the Catholic religion in Scotland; and with that religion the finest edifices of St. Andrew's moulder- into ruins, its castle was neglected, and the city deferted. The entrance into the castle is till visible; and ftrangers are fhewn the window out of which, it is faid, the cardinal leaned to enjoy the crucifixion are the place of George Wishart, who was burnt on an adjoining fpot. Of the four great parallel streets of this city, only one now remains entire, one being totally lofd, and other two in a very decayed condition. The university of this city was founded in 1411 by bishop Wardlaw. It conflited once of three colleges. St. Salvator's was founded in 1558 by bishop Kennedy. This is an irregular pile of building, of confiderable extent, united with a large church, which contains a fine old monument of the founder, who died in 1466. The interior of the college, though spacious, is gloomy, and consists of two large old halls, and a range of apartments in rather a more modern style, of which, however, only one side is finifhed. The college of St. Leonard was founded by Prior Hepburn in 1523, but it is now converted into private houses, and the collegiate part is united with the laft. The third college is the New, or St. Mary's, which was established by Archbishop Hamilton, in 1553; but the house was begun by James and David Bea- ton, who did not live to complete it. This has a far more cheerful appearance than the old college, though it is much smaller. The library belonging to the whole university is connected with this college. In this library are kept two curious maces, exquisitely carved in brass work, and a fourth is preferred in the audit-room of the old college. These maces were dug for under the great altar of the cathedral by the direction of an old man, who was told to have in his possession
paffion many papers relating to the church and its environs; six were found, one of which was presented to each of the three universities of Edinburgh, Glasgow, and Aberdeen; and the other three are kept at St. Andrew’s. On the site of this college formerly stood, as it is said, a “Schola bulbuli” long before its establishment into an university. It is called the “New College,” because of its late erection into a divinity college by the archbishop.

This university is governed by a chancellor, who is elected by the two principal, and the professors of both the colleges. The rector is the officer to whose superintendence are committed the privileges, discipline, and duties of the university. Each college has a principal; that of St. Salvator has nine professors, and the New College has five professors. The students in the former are generally about 100, and in the latter about 30. This university has many advantages to recommend it in point of situation, instruction, and discipline.

The commerce of St. Andrew’s is inconsiderable; and its manufactures, whatever they might formerly be, are reduced to that of golf-balls, which maintains a great number of people.

Andrew’s, St. Bay, is situated between the Forth and the Tay. The haven is defended from the violence of the easterly sea by a stone pier; the entry is very narrow, and it has only seven or eight feet at neap tides, and ten or eleven at spring tides. The city is at the bottom of the bay close upon the shore.

Andrew’s, St. A small town of America, in the contested country between New Brunswick and the United States, situated behind an island of the same name, on the east side of the arm of the inner bay of Passamaquoddy, called Scoodick. The town is laid out in the form of an oblong square, and the inhabitants are chiefly employed in the lumber trade.

Andrew’s, St. is a township in Caledonia county in Vermont, 100 miles north-east from Bennington.

Andrew’s, St. is also a parish in Charlestown district, South Carolina, containing 2947 inhabitants, of whom 370 are whites, and 2540 slaves.

Andrew’s, or Andrea, St. Bay, a secure harbour in the gulf of Mexico, on the south coast of West Florida in North America. It is situated between Santa Rosa bay on the north-west, and St. Joseph’s bay on the south; and being almost surrounded by land, is well sheltered from all winds. N. lat. 30° 15’. W. long. 85° 45’.

Andrew Bay, lies on the south shore of the Straits of Magellan, between Port Holland on the west, and Cordes bay on the east, at the entrance of which there is a good anchorage in 12 fathoms water.

Andrew’s, St. of Andrea, Cape, lies on the west coast of Madagascar island, in the Indian or eastern ocean, and nearly call from Mozambique, on the coast of Africa. S. lat. 15° 46’. E. long. 45° 22’.

Andrew’s, St. Cape, lies also on the eastern coast of South America, between Rio de la Plata, on the north-north-east, and Anegada bay on the south-south-west. S. lat. 37° 55’. W. long. 66° 45’.

Andrew’s, St. Cape, is also on the north shore of Magellan Straits, in the reach which trends from Cape Forward to the West.

Andrew’s Cape, or Andrea, lies on the east point of Cyprus. N. lat. 35° 31’. E. long. 34° 56’.

Andrew’s, St. Island, or Andrea, is a small island in the gulf of Venice, on the west side of Lissa island.

Andrew’s, St. River and Point, lie on the coast of Africa, north-east by east from Cape Palmas, at the distance of 20 or 30 leagues. They are situated in that track of coast, extending seven leagues, which is called the Red Cliffs, or Red Land. Although no ships go up this river, a considerable traffic is carried on by means of the canoes of the Negroes, who bring down teeth for sale. Wood and water may be procured here, but no provisions.

Andrew’s, St. Sound, lies south of Jekyll’s island, and is formed by this and a small island at the mouth of the Great Sagilla River. The small river opposite to this found separates Camden from Glynn county, in Georgia.

Andrew’s, Lancelot, in Biography, an English divine, was born at London in 1565, and was bishop of Winchester, in the reign of James I. and Charles I. From Merchant Taylor’s school he was sent to Pembroke Hall in Cambridge; and by his affluence application he became acquainted with the sciences and modern languages, and he excelled more especially as a mathematician, and was often consulted in cases of confluence. The following anecdote will illustrate this part of his character: a corpulent alderman of Cambridge, who had been often reproved for speaking at church, and whose confluence troubled him on this account, applied to him for advice. Andrew told him it was an ill habit of body and not of mind, and advised him to eat little at dinner. The alderman tried this expedient, but found it ineffectual. He applied again with great concern to Andrews, who advised him to make a hearty meal as usual, but to take his full sleep before he went to church. The advice was followed, and the alderman came to St. Mary’s church, where the preacher was prepared with a sermon against speaking at church, which was thrown away, for the old alderman looked at the preacher during the whole sermon time, and spoiled his design. Andrews’s lectures, as a caufet, were attended by a numerous auditory. His learning, popular talents as a preacher, and zeal for the Protestant cause, procured him the patronage of Henry Earl of Huntingdon, and Sir Francis Walsingham, secretary of State to Queen Elizabeth; and he passed through several stages of preferment to the deanery of Westminster. Whilst he resided in London as prebendary and residuary of St. Paul’s, he read divinity lectures in that cathedral three times a week during term time; and he also maintained a connection with his college, of which he was chosen a master, and to which he was a liberal benefactor. Andrews’s style of preaching, which was pedantic and quaint, suited the taste of King James I. so that he was a great favourite with this prince. The king selected him in order to vindicate his sovereignty against the vehement attack of Balfarine, who, in reply to ‘‘James’s Defence of the Rights of Kings,” had written a tract under the fictitious name of Matthew Tortus. The dean’s answer was intitled “Tortura Torri,” or Tortus Tortured, and printed in 1609. This service was so acceptable, that in this year he was advanced from the see of Chichester, to which he had been promoted in 1605, to the bishoprick of Ely; and he was also nominated a privy counsellor, first for England, and afterwards for Scotland, where he attended the King in his journey to that kingdom. In 1613 he was raised to the bishoprick of Winchester, and the deanery of the king’s chapel, which preferments he held till his death, which happened at Winchester-house, in Southwark, in 1628, in the 71st year of his age. He was buried in the parish church of St. Saviour’s, Southwark, and a monument of marble and alabaster was erected over his grave, on which is an epitaph written by one of his chaplains in the highest style of panegyric. Bishop Andrews appears to have been a man of eminent talents, acquisitions, and virtues. He is said to have understood 15 languages: he employed a large portion of each day in devotion and study; and his learning and affability commanded the respect not only of his own countrymen,
men, but of foreigners, by whom he was visited; such as Vossius, Grotius, Caubon, Cluerius, Erpinius, and Dumoulin. His first biographer, Isaacson, informs us, that in the distribution of preferment he was disinterested, impartial, and judicious; that he provided liberally for the dependents of his early instructors and benefactors; that, after he became bishop, he never visited either of the universities without leaving 50 or 100l. to be distributed among poor scholars; that his charity kept pace with his advancement, his private alms amounted in the last six years of his life to upwards of 1300l. and that, as he died a bachelor, he left large legacies to charitable uses; and among the rest, a great part of his estate to be distributed among his servants. Bishop Andrews was a faithful son and zealous defender of the church; at the same time he was moderate in his political principles, independent in his spirit, and superior to the mean adulation that disgraced the court of James, as the following anecdote, related in the life of Waller the poet, will shew. Mr. Waller, going to the king at dinner, overheard a conversation between his majesty and two prelates, the bishop of Wincheste and Dr. Nalke, bishop of Durham, who was flourishing behind the king's chair. His majesty asked the bishops, "My lords, cannot I take my subject's money when I want it without all this formality in parliament?" The bishop of Durham readily answered; "God forbid, Sir, but you should; you are the breath of our pulps." Whereupon the king turned and said to the bishop of Wincheste, "Well, my lord, what say you?" "Sir," replied the bishop, 1 have no skill to judge of parliamentary cases." The king answered, "No put off, my Lord, answer me presently." "Then Sir," said he, "I think it lawful for you to take my brother Nalke's money, for he offers it." Milton thought bishop Andrews worthy to be celebrated by his pen; and, at the age of 17, wrote an elegy on his death, abounding with that rich fancy which has rendered his works immortal. The works of bishop Andrews, besides that already mentioned, are, "A Manual of Private Devotions," "A Manual of Directions for the Visitation of the Sick," a volume of tracts chiefly in Latin, containing sermons, theological dissertations on the ecclesiastical rights of princes, tythes, usury, &c.; published in 1629; a posthumous volume of "Sermons," published in folio by direction of the king, and under the inspection of the bishops of London and Ely; "The Moral Law explained, or Lectures on the Ten Commandments," with other sermons, printed in folio in 1642; and "A Collection of Poetical and Orphan Lectures," delivered at St. Paul's and St. Giles's, Cripplegate, printed in folio in 1657. The sermons of bishop Andrews, though learned and pious, afford many specimens of that pedantry and fable which marked the period in which he lived, and cannot be read with pleasure in an age of more correct taste. Biog. Brit.

ANDRIA, in Antiquity, a name given by the Cretans to the public entertainments, at which whole cities, tribes, or other bodies of men, were present. They were first instituted by Minos of Crete, and, after his example, appointed by Lycurgus at Sparta. They were conducted with the greatest frugality and decorum, and persons of all ages were admitted to them. The hall, or place of eating, where these entertainments were held, was designated androtrion, in the uppermost part of which was a contract table, set apart for strangers.

ANDRIA, also used by some naturalists, to denote a species of hemaphrodite, wherein the female sex has the preponderance.

ANDRIA, in Ancient Geography, now the Indre, a river of the interior of Gaul, which, uniting with the Care, discharges itself into the Liger.

ANDRIA, a town of Greece, in the district of Elia.

ANDRIA is also a town of Macedonia.

ANDRIA, or ANDRIACA, in Geography, a town of Italy, in the kingdom of Naples, and province of Bari, the see of a bishop suffragan of the archbishop of Trani. It is situated in a valley with hilly environs, about four miles from the coast of the Adriatic, five miles west-south-west of Trani. This town is said to have been built by Peter the Norman, and to have derived its name from the antra or caverns in which the first settlers took up their abode. N. lat. 41° 15'. E. long. 16° 47'.

ANDRIACA, in Ancient Geography, a town of Thrace, on the coast of the Euxine sea, near Salmydeus, according to Strabo.

ANDRIA is also a town of Asia Minor, in Lydia. According to Appian this was the port of Mira; but M. d'Anville places it to the south-west of Mira.

ANDRIA is a town placed by Tolemeus in Media.

ANDRICUS, or ANDRIPOLUS, a high mountain in Cilicia Trachis, placed between the promontory of Ancamium, and the river Selius.

ANDRICUS, a river of Cilicia, according to Polybius.

ANDRIMACHIDES, a people of Africa whose country is not known; but Alexander ab Alexandro reports, that their king obtained the first favour of the young women before they were introduced to their husbands.

ANDRINOPE, in Geography. See ADRIANOPE.

ANDRIPOURA, or Indrapor, a country of the island of Sumatra, including a town of the same name, and several others; the chief article of commerce is pepper. The town is situated on a rapid river, 60 miles north-west of Bengkoolen. S. lat. 2° 15'. E. long. 101°.

ANDRISCU, called by the Romans Pseudo-philippus, in Geography, is said to have been a native of Aderamytum, and descended from mean parents. He assumed, however, the character of a natural son of Peres, 16 years after the death of the king of Macedon, pretending, that his father had sent him to Aderamytum in disguise, and that he was not to disclose the secret of his birth till he arrived at the age of 14 years. Refusing Peres in his person, the story was more credible; and accordingly he went to the court of Demetrius Soter, who had married a daughter of that king. Demetrius, either suspecting the imposture, or dreading the Romans, delivered him up to the republic. From Rome he made his escape, and sought refuge in Thrace. Here he assembled a number of perfons, who became attached to his interest, and, marching to Macedon, he asserted his rightful title to the crown. Having made himself master of the country, he extended his conquests to the adjacent parts of Greece. Scipio, the Roman general, was sent to restrain him; but, by the aid of a body of auxiliaries, he drove him back to Macedon. When the emperor Metellus had commissione to terminate the war, he advanced to Macedon, and was attacked, defeated, and slain by Andricus. In consequence of this advantage Andricus was established on the throne, and the Carthaginians sent ambassadors to congratulate him, and to propose an alliance. Andricus, however, could not endure prosperity; but became cruel and oppressive, and lost the affection of his subjects. At this time the Romans sent Q. Caecilius Metellus to Macedon, and Andricus was under a necessity of valiantly contending for his crown and life. After some trilling advantage which he gained at first, he was entirely defeated, and compelled to retire into Thrace. The Thracians enabled him to return with a numerous army, but he was again defeated by Metellus;
tellus; and seeking refuge with Lyzas, a petty prince of Thrace, he was delivered by him to the Romans. Metabol led him in triumph, in the year before Christ 147; and he was afterwards put to death by the Senate. The Roman general, who succeeded in the war against Andronicus, obtained the appellation of Macedonius; and it has been doubted whether Andronicus was an impositor, or the son of a king. Mod. Uni. Hist. vol. vii. p. 98—137.

Andrias, in Ancient Geography, a river of Asia, which, according to Strabo, ran into the Scamander.

Andro, P. K. in Geography, in the island of Belle tite, on the coast of France, is round the extremest point of the island, called Print de Locmaria on the south half.

Androcalis, in Ancient Geography, a town of Ethiopia, near Egypt, according to Plan.

Androdias, in Ancient Writers, denotes the fortythird year of a man's life, otherwise called annus Egyptianus, and dimoral wignus.

Androgeus, in Etymology, a species of Papilio (Eq. Tr.) that inhabits Sumna. The wings are black and bronzed; on the under side painted spots of blue, red, and yellow. Fabricius and Gmelin. This species is very similar to papilio polydamas; and the Papilio acanthus of Cran mer is considered as a variety (5) of it.

Androgyne, in Botany, plants bearing male and female flowers on the same root, or bearing fonic flowers with stamens only and fome with pistils only on the same root, without any mixture of such are hermaphrodite. Of this we have examples in the melon and cucumber.

Androgynum, in Ecclesiastical Writers, is used to denote matrimony, or even one of the parties married.

Androgynum, balneum, denotes a bath common to both sexes.

Androgyne, or Androgyne, adrōgyν, a compound of adrō, man, and γυν, woman, q. d. man-woman, an appellation distinguishing those living creatures, which, by a monstrons formation of their generative parts, seem to unite in themselves the two sexes, that of the male and female, and synonymous with hermaphrodite. See Hermaphro dite. The term is also applied in ancient mythology to fabu lous creatures, each individual of which possessed the faculties and distinguishing characters of both sexes, having two heads, four arms and feet. Some fanciful writers have reported, that the first man was created with two bodies, a male and a female, and that of these God made two persons, by separating one body from the other. See Adam. It is generally said, that this was a fiction of the Rabbits; but there is reason to believe that it was of more early original. Plato's fable of the Androgyne indicates the tradition to which he had recourse; and it confirms the supposition, that a fragment of this kind might have had its first rise in the early times, when the Egyptians and Phenicians disgruntled the plain narratives which they found of the origin of things with their fables and mythology. See Enech. Prep. Evangel. lib. i. c. 10. According to Plato's account (in Conviv. Oper. vol. iii. p. 157. ed. Serrani) the Gods formed man with two bodies and two sexes. This fantastic being, possessing in itself the whole human fyltem, was endowed with a gigantic force, and became insolent, fo as to make war against the gods. Jupiter, exasperated at this insouler, determined to destroy it; but relenting, and averse from utterly annihilating the human race, he contented himself with debilitating this compound being by separating the male from the female, and leaving each half to subsist with its own powers alone. The office of reforming the separate bodies, and extending their skins so as to cover the whole surface, was asigned to Apollo, who imitated it to the unbiies. If this half rebelled, it was to be divided by another fiction, so that only one of the parts, which they composéd, should be left; and even the fouth part of a man was to be annihilated; it should perish in its obminity and frivolous attempts. The idea of these Androgynes might possibly be borrowed from a passage in Mose's account of the creation, in which he represents Adam as calling Eve "bone of his bone, and flesh of his flesh." A French poet has made an ingenious application of this fable of Plato. He attributes, as the philosopher does, the propinquity by which the sexes incline to one another to the mutual adornment which each half of the androgyne seek for reunion, and their inconsistency to the difficulty which each of the disjoined parts encounters in its efforts to recover its proper and original half. If a woman appears to us amiable, we instantly imagine her to be that modesty with whom we should only have constituted one whole, had it not been prevented by the influence of our original double-sexed progenitor.

"The heart, with fond credulity impris'nd,
Tell us the half is found, and hope for red;
But 'tis our cure, that sad experience shews,
We neither find our half, nor gain repose."

The alchemists also give the appellation androgyne to one of the planets as are sometimes hot, and sometimes cold, as Mercury, which is reputed hot and dry when near the sun, and cold and moist when near the moon.

Androide, in Mechanics, compounded of andros, ma θ, man, and izes, form, an automaton, in the figure of a man; which, by virtue of certain springs, &c. duly contrived, walks and performs other external functions of a man. Albertus Magnus is recorded as having made a famous Androide, which is said not only to have moved, but to have spoken. The construction of this machine must have been very ingenious and complex, if it be true that he was employed upon it 50 years. Thomas Aquinas is said to have been so frightened when he saw this head, that he broke it to pieces; upon which Albert exclaimed "Perit operis triginta annorum." Artificial puppets, which, by internal springs, run upon a table, and, as they advance, move their heads, eyes, or hands, were common among the Greeks, and from thence they were brought to the Romans. They were known by the name of "Neuropsilfa," and were much used at their shows. Ariosto (De Mundo, c. vi.) speaks of some which moved their heads, eyes, hands, and limbs in a very natural manner. They are also particularly mentioned by Galen, (De Utro partium, lib. iii.) Xenophon, (Sympos.) Antoninus, (De Seipla, ii. iii. iv. vi. vii. 3. xii. 97.) Horace, (Sat. ii. 7. 52.) Celsius, (lib. xiv. 1.) and others. That Daedalus made statues which could not only walk, but which it was necessary to tie, that they might not move, is related by Plato, (Meno, Oper. tom. ii. p. 97. and Enthypphon, Oper. tom. i. p. 11.) Ariosto, and others. The latter speaks of a wooden Venus, and informs us, that the secret of its motion consisted in pouring quick-filer into it. The Chiefe have used quick-filer for giving motion to puppets, and their method of doing it is described by Mufelerbrock, (Intro. ad Philol. Nat. vol. i. c. iii. iv. livii. p. 143, &c.) Figures or puppets, which appear to move of themselves, were formerly employed to work miracles; but this use is now superfeved, and they serve only to display ingenuity, and to answer the purposes of amusement. One of the most celebrated figures of this kind was constructed by Vaucanon, and exhibited by him at Paris, for the first time,
in 1738; and a particular account of it was published in the Memoirs of the Academy for that year. This figure represents a flute-player, which was capable of performing various pieces of music by wind issuing from its mouth into a German flute, the holes of which it opened and shut with its fingers. The figure was about 2½ feet high, placed upon a square pedestal 4½ feet high, and 2½ broad. The air entered the body by three separate pipes, into which it was conveyed by nine pairs of bellows, which expanded and contracted, in regular succession, by means of an axis of fleel turned by clock-work. These bellows performed their functions without any noise, which might have discovered the manner by which the air was conveyed to the machine. The three tubes, which received the air from the bellows, passed into three small reed-tubes in the trunk of the figure. Here they united, and ascending towards the throat, formed the cavity of the mouth, which terminated in two small lips, adapted in some measure to perform their proper functions. Within this cavity was a small moveable tongue, which, by its motion at proper intervals, admitted the air, or intercepted it in its passage to the flute. The fingers, lips, and tongue derived their proper movements from a fleel cylinder turned by clock-work. This was divided into 15 equal parts, which, by means of pegs pressing upon the ends of 15 different levers, caused the other extremities to ascend. Seven of these levers directed the fingers, having wires and chains fixed to their ascending extremities, which, being attached to the fingers, made them to ascend in proportion as the other extremity was pressed down by the motion of the cylinder, and, vice versa; then the act of one of a lever produced a similar act of or defect in the corresponding fingers, by which one of the holes of the flute was occasionally opened or floopped, as it might have been by a living performer. Three of the levers served to regulate the in-breaths of the air, being so contrived as to open and shut, by means of valves, the three reed-tubes above mentioned, so that more or less strength might be given, and a higher or lower note produced as occasion required. The lips were, by a similar mechanism, directed by four levers, one of which opened them to move the air a fleel passage before the other contrived them, the third drew them backward, and the fourth pushed them forward. The lips were projected upon that part of the flute which receives the air, and, by the different motions already mentioned, modified the tune in a proper manner. The remaining lever was employed in the direction of the tongue, which it easily moved so as to shut or open the mouth of the flute. The just succession of the several motions, performed by the various parts of this machine, was regulated by the following simple contrivance. The extremity of the axis of the cylinder terminated on the right side by an endless screw, consisting of twelve threads, each placed at the distance of a line and a half from the other. Above this screw was fixed a piece of copper, and in it a fleel pivot, which, falling in between the threads of the screw, obliged the cylinder to follow the threads, and, instead of turning directly round, it was continually pushed to one side. Hence, if a lever was moved, by a peg placed on the cylinder, in any one revolution, it could not be moved by the same peg in the succeeding revolution, because the peg would be moved a line and a half beyond it by the lateral motion of the cylinder. Thus, by an artificial disposition of these pegs in different parts of the cylinder, the figure was made by the successive elevation of the proper levers to exhibit all the different motions of a flute-player, to the admiration of every one who saw it. Another figure, constructed by Vaucanson, played on the Provençal shepherd's pipe, held in its left hand, and with the right beat upon a drum, or tambour de Basque. Another automaton, of the ingenious contrivance of Vaucanson, was a duck of the natural size, which moved its wings, exhibited all the gestures of that animal, quacked like a duck, drank water, ate corn, and voided something like excrement. We may here observe, that the flute-player of Vaucanson was not the first of its kind. In the beginning of the 16th century, the anonymous author of the poem, entitled, "Zodiacus Vitae," gave at Rome a figure made in like manner by a potter, but no account is given of its construction. The performances of Vaucanson were imitated, and even exceeded, by M. de Kempelen of Preßburg, in Hungary. The automaton constructed by this gentleman in 1769 was capable of playing chess. It was brought over to England in 1783 by its inventor, and remained here for more than a year. The figure is as large as life, in a Turkish dress, seated behind a table, with doors 3½ feet long, 2 deep, and 2½ high. The chair on which it sits is fixed to the table, which is made to run on four wheels. It leans its right arm on the table, and in its left hand holds a pipe; with this hand it plays after the pipe is removed. A chess-board of 18 inches is fixed before it. The table, or rather chest, contains wheels, levers, cylinders, and other pieces of mechanism, all of which are publicly displayed. The vellums of the figure are then lifted over its head, and the body is seen full of familiar wheels and levers. There is a little door in its thigh, which is likewise opened; and with this, and the table also open, and the figure uncovered, the whole is wheeled about the room. The doors are then shut, and the automaton is ready to play; and it always takes the first move. At every motion the wheels are heard; the image moves its head, and looks over every part of the chess-board. When it checks the queen it makes its head twice, and thrice in giving check to the king. It likewise shakes its head when a false move is made, replaces the piece, and makes its own move, by which means the adversary holes one. M. de Kempelen has exhibited his automaton at Petersburg, Vienna, Paris, and London, before thousands, many of whom were mathematicians and chess-players, and yet the secret by which he governed the motion of its arm was never discovered. He valued himself upon the construction of a mechanism, by which the arm could perform ten or twelve moves. It then needed to be wound up like a watch, after which it was capable of continuing the same number of motions. This automaton could not play unless M. de Kempelen, or his assistant, was near it, to direct its movements. A small square box was frequently consulted by the exhibitor during the game, and in this consulted the secret, which the inventor declared he could communicate in a moment. Any person who could beat M. de Kempelen at chess, was sure of conquering the automaton.

There have been many speaking machines, which seem to answer various questions propounded, sometimes in different languages, and even blow a huntsman's horn. The figure, or perhaps only a head, is often placed upon a box, the form of which, for the better deception, is filled with a pair of bellows, a founding board, a cylinder and pipes, suppos'd to represent the organs of speech. At other times the machine is only like a peruke-maker's block, hung round with a Turkish dress, furnished with a pair of arms, and placed before a table; and sometimes the puppet stands upon the table, or against a wall. The sounds are heard through a speaking trumpet, which the figure holds in its mouth. Some have pretended, that the voice of machines of this kind does not proceed from a man, but that it is produced by mechanism, like the music of an organ. Some affirm, that the voice issues from the machine itself; others, that the juggler answers, by speaking in the manner of ven-
trigleipsis, from the lower part of his belly, or by having the power to alter his voice; and hence believe that the answers are given by a man somewhere concealed. It is, however, well known, that a child or a woman is concealed in the juggler's box; or that some panion, in a neighbouring apartment, speaks through the wall to the puppet, and which conveys the answers to the spectators. The invention of such statues to speak, by this method, seems to indicate, that one can freely forbear conjecturing, that it was anciently employed to impose impositions; and many have imagined that the greater part of the statues were delivered in this manner. See Van Dale de Oraculis, 3.10. Anni. 1697, p. 291. Whether the head of Orpheus spoke in the island of Lesbos, or, as is more probable, the answers were conveyed to it by the priests, was a cause with the tripod at Delphi, cannot be now ascertained. That the impostor Alexander, however, caused his Alcubalus to speak in this manner is expressly related by Lucan. He took, says this author, instead of a pipe, the gulk of a crane, and transmitted the voice through it to the mouth of the statue. In the fourth century, when Bishop Theophilus broke to pieces the statues at Alexandria, he found some which were hollow, and placed in such a manner against a wall, that a priest could flap unperceived behind them, and speak to the ignorant people through their mouths. Theodor. Eccl. Hil. lib. v. c. 22. p. 218. Ed. Valphi. Beckman's Hist. of Inventions, vol. iii. p. 317. &c.

See Automaton.

ANDROPSY. formed of arv, man, and 
kapn. I take, in Antiquity, an action against those who protected murderers, by which if an Athenian were killed by a citizen of some other place, and such city refused to deliver up the criminal to punishment, it was held lawful to take three inhabitants of that city, and to detain them, till the murderer had either surrendered himself, or satisfied the law. This the Greeks called andropsia, and the Romans claritatio. Some authors also use andropsy for repri

SALS.

ANDROMACHA, in Entomology, a species of papilio (Parnassius) that inhabits New Holland. Wing above and beneath alike, dotted with black; anterior pair naked, posterior pair yellowish. Fabricius and Gmelin.

ANDROMACHA, a species of sphinx, (zygaena of Fabr

icius) that inhabits America. It is black, wings transparent, margin and band black, tail red. Gmelin. The sphinx canaus of Cramer is supposed to be a variety of this species.

ANDROMACHE, in Biography, the wife of Hector, was the daughter of Aetion, king of Thebes, in Cilicia. She lived in the happiest conjugal union with her husband till his death. At the siege of Troy she had the affliction of witnessing the precipitation of her son Aityanax from a high tower, and of being herself a captive slave to Pyrrhus, the son of Achilles, who was the deadly foe of Hector. She afterwards became the concubine of Pyrrhus, and had children by him. After the death of Pyrrhus, or, as some say, during his life, she married her fellow-captive Helenus, a son of Presm, and brother of Hector; and she reigned with him over part of Epirus, and perpetuated a race from whom Pyrrhus, king of Epirus, the antagonist of the Romans, is said to have sprung. Several tragedies, ancient and modern, have been composed on the subject of Andromache; but the interest of the most pathetic poem probably arises from sentiments foreign to her period and character. Gen. Duf.

ANDROMACHUS of Crete, was physician to the emperor Nero. He invented the composition, called after him, Theriac Andromachi, which he dedicated to the service of Nero, in a copy of Greek verses that have been preferred to the present time. Galen wrote two books in commendation of the medicine. It was given as an antidote against the poison of the viper, and was soon supposed to have equal power against all other poisons, and to prevent or cure malignant and infectious fevers. The emperor Antoninus is said to have made daily use of the composition, and it was kept constantly prepared in the palace by several succeeding emperors. The formula, or process for making it, is described by Aristaedus and by Galen, as well as by the inventor in his verses to Nero. The Venetians became so famous for making this medicine, which they sold for sale to all parts of Europe, that it is now more commonly known by the name of Theria Veneta. Venetian, than by that of the inventor. Andromachus is said to have been the first physician who was dignified with the title of Archiater. Haller, Bib. Med. Prat.

ANDROMEDA, in Astronomy, a constellation of the northern hemisphere, representing the figure of a woman almost naked, with her feet at a distance from each other, and her arms extended and shaded. It is supposed to have been formed in memory of Andromeda, daughter of Cepheus and Cassiopeia, and wife of Perseus, by whom she had been delivered from a sea-monster, to which her father had exposed her to be devoured, in order to preserve his kingdom from the plague. Minerva translated her into the heavens.

Dr. Hook thinks he has discovered the hidden meaning of the story of Andromeda. Vide Pott. Works. p. 487. Andromeda is sometimes called in Latin, "Perseus," "Mulier catarata," and "Virgo devota!" and the Arabs have changed the figure of this constellation from that of a woman to that of a sea-monster. Schickard has changed the name for that of "Abigail!" and Schiller calls it the "holy sulpuche," and exhibits it under that figure. The stars in the constellation Andromeda, in Tulemey's catalogue, are 23, in Tycho's 23, in Hevelius's 47, in Mr. Flamsteed's no less than 68. About 27 of these stars are visible to the naked eye, of which the principal are, α Andromedae, the head, β in the girdle, called mirach, or mizar, and γ on the south foot, named almak, and sometimes allamea.

Some of the stars of Andromeda have been reckoned among the changeable stars, whose brightness varies. Mr. Pigott and Dr. Hertel have made observations on their relative brightness, for which see Phil. Trans. vol. lxxvi. p. 203, 212. vol. lxxxvii. p. 357, 321.

ANDROMEDA, in Botany, licum of Mich. chamadeaphne and polifolia of Buxb. and erica of Tournefort, a genus of the decandria monogyne class and order, of the natural order of biornes and erica of Jussif. Its characters are, that the calyx is a perianthium, five-parted, acute, very small, coloured, and permanent, the corolla is monopetalous, campanulate, and quinquefoil, clefts reflex; the lilium have subulate filaments, shorter than the corolla, and scarcely fixed to it, another two-horned and nodding; the pistillum is a roundish germ, style cylindrical, longer than the flower, and permanent, stigma obtuse; the pericarpium is a capitate, roundish, five-corned, five-celled, five-valved, opening at the corners, partitions contrary, and the seeds are very numerous, roundish, and shining. Off. It differs from erica in number. In some species the corolla is ovate, in others perfectly campanulate. The anthers in some are awned, in others awnless.

Martyn enumerates 55, and Gmelin 24 species. 1. A. tetra-
gena, with peduncles solitary and lateral, corollas bell-shaped, and leaves opposite, imbricate, obtuse, and revolute. This resembles the passifera fliiformis, but the flower are very different, and
and familiar to those of the hills of the valley; the leaves are generally four-fold, whence its square appearance, and the name tetragona. Linnæus first observed it growing very sparingly in Lapland, in 1723; and Gmelin found it on the mountains of Siberia. 2. A. hypoleuca, with peduncles solitary and terminal, corolla bell-shaped, and leaves crowded and awl-shaped. It has the appearance of a weedy species, spreads over large tracts of ground in the Lapland Alps, and adorns them with its beautiful red flowers, the anthers are awned; it is also found in Denmark and Siberia. 3. A. cerina, with peduncles axillary, two-leaved, and one-flowered, and leaves alternate, ovate, and ferrate; the leaves are on short petioles, the corolla is bell-shaped, and the anthers oblong, yellow, two-lobed at the back. It is brought from the island of Otahite. 4. A. caralis, erica folio abietis, flore arbuti of Buxb. with peduncles aggregate, corollas ovate, and leaves scattered, linear obtuse, and flat; the anthers are without awns. It grows wild on the mountains of Lapland, more plentifully on the shores of Dalcarrick and Islay, and is also found in Denmark and Siberia. 5. A. Maritima, Maryland A. with peduncles aggregate and branched, corollas ovate-cylindrical, and leaves oblong-ovate, quite entire, and deciduous; the anthers are without awns; a native of North America; introduced here in 1756 by Peter Collinson, Esq. There are two varieties, a with oval leaves, and b with oblong leaves; the corollas are shaped like those of arbutus, are of an herbaceous colour, appear in June and July, and are sometimes surrounded by fruit, which seldom ripens in England. 6. A. farruginea, a native of Cape Finmark and Jutland, and is also found in Denmark and Siberia. 7. A. polifolia, polifolia of Buxb. erica humilis, &c. of Pluken, rhododendron polifolium of Scop. ledum palustre nostras arbuti flore of Ray, with peduncles aggregate and terminal, and leaves alternate, lanceolate, revolute, beneath glaucous. Martyn enumerates three varieties, viz. a. A. pol. latifolia, broad-leaved marth A. with leaves oblong, corollas ovate and flesh coloured, segments of the calyx spreading, ovate, and white, sometimes red at the tip. b. A. pol. media, common marth A. or wild rosemary; with leaves lanceolate, corollas oblong-ovate red, and segments of the calyx more erect. c. A. pol. angustifolia, narrow-leaved marth A. with leaves lanceolate linear, and segments of the calyx oblong and red. This is an elegant little shrub, which rises from six to eight inches in height, is erect and branched; the flowers are fleshly and nodding the calyx is red, the corolla of a pink colour, the anthers awned, the capsule erect and five-turrowed, the style white, with a purple stigma, and the seeds very many and small. It is a native of America and the northern countries of Europe on turf bogs; in Kullan, Sweden, Denmark, Germany, Swinemar, and in Britain, on the mouses of Cheare, Lancahir, Willmorlaine, Cumberland, Yorkhire, and Scotland, as on Brigsten mouses, near Kendal, Middleton mouses, by Lancelfet, on Blackstone-edge, between Halifax and Rochdale, upon Sowley mouses in great quantities, and not unfrequent in peat-bogs in the lowlands of Scotland. Its flowers in June, and is called marsh chilalis, wild rosemary, Poley mountain, moor-wort, and marsh holy rofe. There is some difference in the varieties as found in North America (a), in Europe (b), and in New-England and Labrador (y), as above specified. 8. A. bryanta, bryanthus of Gmelin, with flowers Corymbed, leaves elliptic, and profusely fruited. This comes up in thick clumps, like wild thyme, on the rocks of Kamptchata. 9. A. dacebacea, erica dacebacea, erica Hibemica, &c. of Ray, Irish whorts, Cantabrian heath, or trailing Andromeda, with racemes pointing one way; flowers quadrifid, ovate, and leaves alternate, lanceolate, and revolute. This was formerly an erica, and wants one-fifth in the parts of fructification, and ought, perhaps, with herkoidea and cervisia, to be removed to that genus. This species has the habit or air of an andromeda, but the character of an erica. The seed-veil is a four-celled, four-valved capsule; it has been observed to grow only in the Irish bogs, and flowers in June and July. 10. A. desponsa, erica glittonea of Berg, cernellus rosil foliis of Pet. clamy A. with racemes pointing one way, and leaves linear, hairy and villose. The number of parts of fructification varies from 4 to 8 or 5 or 10; it is fitted to N9&9, and has all the habits of Andromeda; a native of the Cape of Good Hope. 11. A. paniculata, paniculata A. with racemes terminal, panicled, corollas rounded, and leaves ovate, rather entire; the stem is about four feet high; the flowers grow in loose spikes from the ends of the branches, being shaped like those of arbutus, only a little longer, and appearing in July, but not producing seeds in this country; the anthers are awned: a native of Virginia, and cultivated here in 1748 by Archbold, duke of Argyle. 12. A. japonica, with racemes panicled, cylindric and bracted, and leaves elliptic, reflex, and ferrate at the tip. This is a tree, a native of Japan, near Nagasaki, and flowers in December. 13. A. arbores, tree-Andromeda, or forest-tree, with panicles terminal, corollas rather downy, and leaves elliptic, pointed, and tooth-letted. This is in Virginia a shrub, growing 10 to 12 feet high, but in Carolina it rises 20 feet; the branches are flancier, and bend downwards; the flowers grow in long, naked spikes from the sides of the branches, they are of an herbaceous colour, and ranged on one side of the stalk. This is in Virginia planted here in 1752 by Mr. Miller. 14. A. racemosa, branch- or Pennsylvania-Andromeda, with racemes terminal, simple, and bracted, corollas cylindric, and leaves oblong-lanceolate, and ferrate. This was found in Pennsylvania by Kalm, introduced here in 1756 by P. Collinson; flowers in July. 15. A. axillaris, notched-leaved A. with racemes axillary and simple, corollas oblong, leaves ovate, acute, and ferrate. A native of Carolina, introduced in 1765, and flowering from May to August. 16. A. corisaca, thick-leaved A. with racemes axillary and simple, leaves ovate, very entire, very shining, and branches three-cornered; found in North America, introduced in 1765, and flowering in July and August. 17. A. acuminata, A. lucida of Jacq, acute-leaved A. with racemes axillary and simple, leaves ovate-lanceolate, acuminate and ferrate. This is a shrub about four feet high, upright and smooth, with round branches, leafy to a considerable extent; the flowers smell like honey, the perianth is green, the corolla snow-white. It is a native of North America, was introduced in 1765, and flowers in July and August. 18. A. calypalata, calypalata A. with peduncles solitary, axillary, and pointing one way, two bracts, and leaves oval, fey-dotted, and obfoleter ferrate. There are three varieties: 8. A. cal. trinervi, trinervi of Buxb., globos-flowered calypalata A. with globos corollas, and oblong-lanceolate leaves; e. A. cal. latifolia, broad leaved calypalata A. with corollas oblong-cylindric, and leaves oblong-ovate, and obtuse; y. A. cal. angustifolia, narrow-leaved calypalata A. with corollas oblong-ovate, and leaves oblong-lanceolate. This is a low shrub, with leaves of similar shape and consistence to those of the box tree, with small punctures on them; the flowers grow in short spikes at the extremities of the branches, fuggle, between two leaves, and white; the leaves are oblong on the racemes, and from the axil of each produces a solitary, pedicelled flower; the calyx is covered at the base, with two oval leaves; the anthers are oblong, bifid, and awned; growing in Sweden, Ingria, Siberia, and North America, on mossy land.
land; cultivated in 1748 by Archibald, duke of Argyle. There is some difference in the varieties from Cilicia, Newfoundland (1), and North America and Siberia (2).

10. A. angulosus, with racemes crowded and leafy; leaves ovate, lightly serrate, amomnilobed underneath, and dotted. This is a shrub with hairy branches, ovate corollas, two-awned anthers, and oblong caps, gaping at the angles; found by Mistis in New Granada. 20. A. rufipilis, with leaves oblong, alternate and ferrate. A native of New Zealand. 21. A. jahiophila, willow-leaved A. with racemes pointing one way, and naked, corollas sub-cylindrical, and leaves lanceolate, acute, and quite entire; found by Commerson in the island of Mauritius. 22. A. busuifolia, box-leaved A. with racemes pointing one way, and naked, corollas sub-cylindrical, and leaves cordate-ovate, quite entire, with a little dagger point. This and the former species differ scarcely at all in their stamination, or in the structure of their leaves, and are distinguishable only by their form; this, however, has none of those lines parallel to the midrib that are so conspicuous in the other species. It is a native of the Isle of Bourbon where it was found by Commerson.

23. A. ficifolius, with peduncles aggregate, leaves alternate, ovate-lanceolate, obtuse, slightly crenulate and coriaceous. 24. A. jamaicensis, with peduncles aggregate, corollas ovate transparent, leaves alternate, broad-lanceolate, obtuse, entire, beneath all-coloured and membranaceous. 25. A. otandera, with peduncles aggregate, corollas cylindrical quadrifid, and leaves alternate, ovate-lanceolate, entire, and membranaceous. The three last species are natives of Jamaica. Gmelin enumerates the following species besides several of those above described, viz. A. ferequinifera, with flowers aggregate, axillary, and terminal, leaves rounded at the margin, revolute, and beneath ferequiniform; fraggellat not to be distinct from the A. ferequina; A. nitida, with peduncles aggregate and axillary, leaves alternate, lanceolate-ovate, entire and permanent; A. natesulis, with racemes ovate and axillary, leaves alternate, petiolate, ovate-lanceolate, ferrate and permanent; A. reticulata, with racemes ovate and axillary, leaves ovate, acuminate, crenulate, alternate, petiolate, beneath reticulate and permanent.

Culture. Most of the species are hardy, deciduous shrubs, which thrive in moister ground; they may be increased by their creeping roots, which put up suckers at a distance, that may be taken off with roots, and transplanted where they are to remain. Those that are imported from America may be propagated by seed sown in the spring in a bed of moister earth; they may be increased by layers in autumn. The 13th fort must be sheltered from frost in winter, and in summer frequently watered. It grows naturally in boggy places, and requires greater heat than that of this climate.

Martyn’s Miller.

Andromeda, in Entomology, a species of Papilio (Parnassius) found in India. The wings are roundish, transparent, white; posterior pair red at the tip, with a single eye-shaped spot on each side. Fabricius and Gmelin.

Andromeda, in Natural History, is likewise a species of Medusa amongst the Vermes mollusca. It is hemispherical, without marginal arms; right round, ramose, foliaceous arms on the under part. Forik. Fy. Arab. Gmelin. This kind is extremely abundant on the coasts of the Red Sea. The body is transparent, and of a pale brownish colour with white rays; the margin is entire; in the middle is a black croze; the arms are white, and rather thicker than a goose quill at their base. Gmelin, &c.

Andromeda, in Middle Age Writers, denotes a kind of garment made of rain-ykins.

Andron, or Andrum, in Antiquity, an apartment in houses assigned for the use of the men. This was otherwise denominated androna, and andronitis. The andron stood opposed to the gymnacum, or apartment of the women. The Greeks also gave their dining-rooms the title andron because the women had no admittance to feasts with the men.

Androna, in Ancient Writers, denotes a street, or public place, where people met and conversed together. In some writers androna is more expressly used for the space between two houses. In which sense the Greeks also used the term euon, as for the way or passage between two apartments. The word is sometimes also written andro, andria, and andronium.

Androna is also used in Ecclesiastical Writers, for that part in churches destined for the men. Anciently it was the custom for the men and women to have separate apartments in places of worship, where they performed their devotions amidst; which method is still religiously observed in the Greek church. The euon or androna was on the southern side of the church, and the women’s apartment on the northern.

Andronicus I. Comnenus, in Biography and History, was the son of Isaac and grandson of Alexius Comnenus, and one of the most conspicuous characters of the age, so that his genuine adventures might form the subject of a very singular romance. He was strong and beautiful; the want of the softer graces was supplied by a manly countenance, a lofty stature, athletic muscles, and the air and deportment of a soldier; and the preservation of his health and vigour in old age, was the reward of temperance and exercise. Dextrous in arms, he was ignorant of fear; his persuasive eloquence could accommodate itself to every situation and character of life; and in every deed of military service, he had a heart to resolve, a head to conceive, and a hand to execute. In his youth he followed the retreat of the Roman army, and in the march through Asia Minor he wandered into the mountains, was taken by Turkish hunters, and became a captive to the sultan. Both his virtues and his vices recommended him to the favour of his cousin, the emperor Manuel; and whilst he lived in public incest with his niece Theodore, Andronicus openly maintained a licentious intercourse with her sister Eudocia, who gloried in the name of his concubine. She accompanied him in his military command in Cilicia, where he professed, with active ardour, the siege of Mopueitia; but he was surprized and thrown into disorder by a Sally of the enemy. On his return to the Imperial camp in Macedon, Eudocia attended his motions; and their tent was suddenly attacked at midnight by her brothers, who were impatient to expiate her infamy in his blood. Refusing to assume a female habit, in compliance with her advice, he started from his couch, and cut his way through the afflatus with his sword. At this time he engaged in a treasonable correspondence with the king of Hungary and the German emperor; in consequence of which he was arrested, and strictly confined in a tower of the palace of Constantiopole. In this prison he remained for more than 12 years; and after repeated and ineffectual attempts to escape, in which he manifest singular resolution and dexterity, he at last succeeded, and retired to the court of the great duke of Ruflia. Having gained this asylum, he solicited the Rulfian prince to join his arms to those of Manuel in the invasion of Hungary, and thus obtained forgiveness from the emperor; and, after a campaign on the Danube, he returned with Manuel to Constantiopole. By refusing the oath of allegiance, which he was required to take to the prince of Hungary, who became the presumptive heir by marrying the emperor’s daughter, he again incurred
And the artful hypocrite was elevated, by acclamation, apparently against his own content, and merely to protect the young emperor and to support his authority, to a partnership in the empire. This partnership, which was merely a preparatory step to the sole sovereignty, he soon terminated by the death of Alexius, whom he caused to be strangled with a bow-string; and the tyrant, inflexible to pity or remorse, after viewing the body of the innocent youth, struck it rudely with his foot: "Thy father," he cried, "was a knave, thy mother a whore, and thyself a fool!" Having thus attained to the dignity of sole emperor, A.D. 1183, he fowed the sceptre about three years and a half, as the guardian or sovereign of the empire. His government exhibited a singular contrast of vice and virtue: when he likened to his pabions he was the scourge, and when he consulted his reason he was the father of his people. In the exercise of private justice he was equitable and rigorous; the provinces, which had been neglected and oppressed, received in prosperity and plenty; and millions applauded the distant blessings of his reign, while he was curbed by the withehdes of his daily cruelties. The nobler families, especially those who claimed any alliance to the Comneni, were either massacred or exiled. At length his throne was subverted by a rival without merit, and a people without arms. Isaac Angelus, a descendant, in the female line, from the great Alexius, being marked as a victim, defended his life and liberty from the executioner, and fled for refuge to the church of St. Sophia. The populace were roused, and Isaac was instantly raised from the sanctuary to the throne. Andronicus, who was indulging himself in the delicious islands of the Propontis, in the society of a young wife and a favourite concubine, returned with all speed to Constantinople; but he found, upon his arrival, that he was universally deserted, and that no condition which he proposed, however self-denying and humiliating, would be accepted. Accordingly he attempted to make his escape; but he was pursued and taken in his flight, and brought back, loaded with fetters, and with a long chain round his neck, to the presence of Isaac Angelus. "His eloquence, and the tears of his female companions, pleaded in vain for his life; but instead of the decencies of a legal execution, this new monarch abandoned the criminal to the numerous sufferers, whom he had deprived of a father, an husband, or a friend. His teeth and hair, an eye and a hand were torn from him; and a short reprieve was allowed, that he might feel the bitterness of death. Afraid on a camel, without any danger of a refuge, he was carried through the city, and the base of the populace rejoiced to trample on the fallen majesty of their prince. After a thousand blows and outrages, Andronicus was hung by the feet, between two pillars that supported the statue of a wolf and a lion; and every hand that could reach the public enemy, inflicted on his body some mark of ingenious or bloody cruelty, till two friendly or furious Italians, plunging their swords into his body, released him from all human punishment. In this long and painful agony, Lord, have mercy upon me!" and "Why will you bruise a broken reed?" were the only words that escaped from his mouth. His death, in the 73d year of his age, closed a reign of two years, and with him terminated the dynasty of the Comneni. Anc. Un. Hist. vol. xii. p. 138, &c. Gibbon's Hist. vol. ix. p. 39.-108.

Andronicus, Cyrestes, or of Cyrillus, was an Athenian astronomer, and celebrated as the inventor of weathercocks. He erected an octagon tower of marble, on each side of which he engraved figures representing the eight winds mentioned by Vitruvius, under the names of Solanus,
AnHAND

Androcnus, Livius, the oldest of the Latin poets, is said to have been a Greek slave, and to have been emancipated by Livius Salinator, whose children he instructed, and whose name he assumed. His performances were chiefly dramatic and comic, and he acted in his own pieces; and, it is said, that when he became home, he caused the world to be revivified by a servant, while he himsifen expatiated the gellulation. He also wrote hymns to the gods, one of which, in honour of Jove, is said, by Livy and Valerius Maximus, to have been sung through the city by girls. An eddyfly is also attributed to him. Some lines, which are quoted by grammarians and critics, are the only relics of him, and they have been printed in the fragments of the other ancient Latin poets, in the "Comica Latina," and the "Corpus Poetarum." Andronicus represented his full piece on the stage, A. U. C. 514, B. C. 246, a year before the birth of Ennius. VoUius.

Andronicus of Rhede, a peripatetic philosopher, came to Rome in the time of Cicero, and served to revive and establish the philosophy of Aristotle. Andronicus collected the writings of Aristotle, by means of the library of Apellicon, sent to Rome by Sylla, and Tyrannio's use of it, arranged, corrected, transcribed, and published them; and, according to Plutarch, he annexed indexes to them; so that he may be considered as a refector of these writings. Andronicus wrote a paraphrase of Aristotle's Categories and Physics, and probably of some other pieces, but none are extant, unless the paraphrase of Aristotle's Ethics, published under his name by Heinlius, 8vo. at Leyden, in 1617, and at Cambridge in 1679, be his, which Salmasius, VoUius, &c. dispute. It is doubted whether a small treatise "On the Pallions," published by David HocheHius, in 1593, was written by this Andronicus. Plut. Vit. Sylla apud Oper. tom. I. p. 468. Gen. Dict.

Andronicus of Thebaisonia, flourishing in the 15th century, and among other learned men, who left Conflagintopile when it was taken by the Turks, contributed to the revival of letters. He taught Greek at Rome, and was entertained in the house of Bellarion; but his salary was so inconsiderable that he was obliged to leave Rome and repair to Florence, whence he removed to Paris, where he died at an advanced age. His knowledge of the Greek language and of Greek authors exceeded that of any of his contemporaries; but he was disqualified for public speaking by a bad pronunciation. Gen. Dict.

ANDRONION, in Physic, the name of a pafil, invented by an ancient physician named Andro, said to have been of great efficacy against the carbuncle and herpes. Its ingredients, according to Aegina's prescripition, are the fumane of copper, et fyllum, fil ammoniaci, alumen robustum, shavings of verdigris, and frankincense, all wrought up with wine. Celiius gives another recipe, and Aetius a third.

ANDROPHAGI, from ang. man, and ca. I eat, among Ancient Geographers, denoted man-eaters. These were more usually called anthropophagi. Herodotus and Pompp. Mea spoke of a nation of androphagi, in Scythia, who observed neither laws nor justice, and had nothing in common with the other inhabitants but their dreads and occupation of feeding cattle.

ANDROPOGON, q. d. man's beard, in Botany, a genus of the polygama monstrosa class and order, and of the natural order of gramina, or grasses. Its characters are, that the hermaphrodite flowers are solid, that then calyx is a glume, one-flowered, two-valved, oblong, obtuse, carinate, and awnless, the outer valve concave, flatish at the back, embracing the inner, which is narrower, with its edges; the corolla is a two-valved glume, and more slender than the calyx; outer valve smaller, often very small, within the inner valve of the calyx, sharp or broad at the end, in mould of the pods is awned; awn terminating, or from the base of the glume, long, with a bent joint, and twisted at the bottom; the inner valve lanceolate, double at the edges; vestigial two-leaved; leaflets thickish and diaphanous; the lamina has three segments, capillary, very tender; authors oblong, forked at both ends, and incumbent; the pistillum is an oblong germ, three-awned, and capillary, fimbriate oblong, and feathers; no pericarpium; glumes of the corolla and calyx invariant, and inclining the seed: the seed, thin, oblong, and covered, armed with the jaw of the corolla, which easily falls off. The male flowers are peduncled, single, or in pairs to each hermaphrodite: the calyx, corolla, and flaves as in the others, except that the corolla has no awn. Martyn enumerates 35, and Gardin 38 species. on androcnus, gramn. capricainum of Rhamp, with spikes solitary and imbricate, seeds fragrant, awns naked and contorted. A. native of Ambouina and Japan. 2. A. contortum, Aegilops Madras-parata, &c. of Schenck. gramn. caleculum indicum, &c. of Pluk. and Mor. with spike solitary, male flowers awnless on the back of the spike, female flowers on the belly of it as long as the spike, with twisted approximating awns, longer than the whole spike. A native of the East Indies; introduced into Kew Garden in 1779 by Anthony Chamier, Eq. 3. A. ornatum, with spikes solitary and thyagge; awns naked, jointed, and very long. A native of Japan; found by Thunberg. 4. A. divaricatum, lagurus humilior, &c. of Gron. Virg. &c. with spike oblong, flowers woolly, remote and divaricate; awn flaxen and naked. A native of Virginia. 5. A. glabrula, Aegilops bromides epica purpurascens of Schenck, gram. sparteum flectuecum, &c. of Barr. gram. avenaceum, &c. of Monti, with peduncles of the panicle entirely simple and three-flowered: the hermaphrodite flosculous, awned, ciliate, and bearded at the base. A native of Piedmont, Verona, Montpelier, Cavacole, the Grifons, and Switzerland. 6. A. faebraturata, with branches of the panicle simple, florets in pairs, hermaphrodite, awnless, the other awnless, pedicellate, withering, pedicel and rachis woolly. A native of Jamaica. 7. A. nutans, with panicle nodding, awns twisted and poliished, glumes of the calyx thyagge. A native of Virginia and Jamaica. 8. A. ciliatum, with panicle nodding, outer calyx many flowered and ciliate, awns contorted and hairy. Found by Thunberg on the mountains of Nagasafii in Japan; flowering in September. 9. A. ferrutum, with panicle loose, one flosculous, villose at the base; the other pedicellate, with the pedicel villose, and shorter than the calyx. A native of Japan. 10. A. cotyledon, with panicle spreading, villose, awn-twilled, naked, pedicels clubbed or swelling at top, and hollowed like a faucer or dish. A native of Japan. 11. A. cymbarum, with panicle scattered, bractes boat-form, flowers transverse, awned, and threefold. A native of the East Indies. 12. A. squarroseum, A. maritimum of Retz, with panicle crowded, glumes oblong, and rugged. Koenig observed it in Ceylon, swimming on deep pools; it is used by the natives for its pleasant smell; they also make fans of it. 13. A. falfusum, with peduncles in five-flowered umbels, without calyces, the hermaphrodite flosculous awned. A native of the East Indies. 14. A. faldigatum, with spikes of the panicle solitary, peduncles several.
druels elongate subfusiligate, racis woolly, dloceles awned, and male fertile. A native of Jamaica. 13. A. alepecuroides, gram. dactylon, &c. of Sloane, with panicle loose, racis woolly, and a twisted awn to each spike, a native of Jamaica and Virginia. 16. A. glaucum, with spikes two, terminal, and culm undivided. Linné says that it grows wild in Swedeland. Schenchen had it from Smyrna. 17. A. sphanoeus, lagurus of Fl. Zeyl, gram. ad junceum accedens aromaticum majus fytianum of Mor. gram. dactylou aromaticum, &c. of Plukue. sphanoeus of Bauhin and Ray, sweet rush, or camel's hay, with spike of the panicule conjugate, ovate-oblong, racis phaeolet, floccules fusillo, with a twisted awn. It is brought over from Turkey and Arabia, in bundles about a foot long, consisting of smooth stalks, in shape and colour resembling barley straws, tall of a funereal pitch like that of rushes. It has an agreeable smell, and a warm, bitterish, but unpleasing taste. Delitilled with water it yields a small quantity of a yellowish, fragrant, and pungent essential oil, and the remaining decoction is bittherish, and somewhat acrid. The spirituous extract is pleasantly aromatic and bitterish. This plant was formerly employed as a warm dromache, and deobiurunt; but in our country its use is superseded by more common aromatic vegetables. It is kept in the shops merely as an ingredient in the mithridate and thercna; but these compositions being excluded from the pharmacopoeia, the sphanoeus, or juncus odoratus is left out of our materia medica. Lewis and Murray. 18. A. Virginicum, gram. dactylou biconce tomentosum minus of Sloane, with spikes of the panicule conjugate, peduncules simple, racis woolly, floceles awnlefs, the male one wanting. A native of America. 19. A. bicora, lagurus of Linn. horiz. chuf. and Gron. Virg. gram. dactylou biconce tomentosum maximum, sicisia numeros of Sloane, with spikes of the panicule conjugate, peduncules branching very much, racis woolly, awn caducous, male floccule wanting. A native of the East Indies, on dry hills, and there called by the English fox-tail grass. 20. A. fritum, gram. dactylou epica gemina of Scheuch. gram. dactylou lucum, &c. of Plukue, with spikes of the panicule conjugate, and calyces shaggy. A native of Portugal, Italy, Sicily, and Smyrna. 21. A. infun- lure, gram. aveneatum, &c. of Sloane, with panicle loose and smooth, floceles double and awnlefs, one pedicel shorter, calyces woolly. A native of Jamaica. See Panicum lanata. 22. A. barbatum, with spikes digitate, calyces permanant, and corolla dilate. A native of the East Indies; introduced into Kew gardens, in 1777, by Dr. Solander. 23. A. pubescens, chloris ciliata of Swartz, with spikes digitate, calyces subtiflorous, outer petals awned, keel and edge of the hermaphrodit flower ciliate. A native of Jamaica; introduced at Kew in 1779, perennial, and flowering from July to September. 24. A. nardus, lagurus of Fl. Zeyl, with branches of the panicule superdecemprolaphy and prolificlate. See Spicenard. 25. A. muticum, with spikes digitate, mostly three, and floceles alternate, sfille, and awnlefs. A native of the Cape of Good Hope. 26. A. fiche- num, gram. dactylou, &c. of Scheuchzer, with many digitate spikes, selile floceles, awnlefs and awnlefs, and woolly pedicels. A native of the Southern parts of Europe, growing on mountains, hills, and other dry situations; introduced to Kew, in 1778, by Mr. Thomas Blackie. 27. A. sdeniculatum, chloris radiata of Swartz, gram. dactylou, &c. of Mor. many-spiked andropogon, with spikes fiscate, very many and smooth, calyces two-flowered, valius acute, smooth and even, the outer like petals, and awned, the inner floccule barren. A native of Jamaica; introduced in 1779, and flowering from July to September. 28. A. polyglosson, chlohis polyglossa of Swartz, gram. dactylou elatum of Sloane, with spikes fiscate, outer petals awned, those of the lower floccule ciliare-bearded. A native of Jamaica. 29. A. quatuor, with panicle leafy, involucres and calyces two-flowered, calyces of the fiscule flowers three-valved, of the peduncled ones two-valved. A native of the East Indies, whence it was sent by Koenig. 30. A. ferratum, with spike simple, imbricate, with two rows of awned fiscule flowers, and two of awnlefs pedicelled ones, calyces one-valved. A native of Bengal, where it was found by Koenig. 31. A. nicoletum, with spikes fiscate, subfiscate, flowers twin, the female pedicelled and awned, the male sfille and awnlefs, the calyces one-valved. Found by Koenig in Tranquebar near rivers. 32. A. lanatum, with spikes twin, woolly, one valve of the calyces acuminate, the other truncate, three toothed, the larger petal-awned. Observed in the East Indies by Koenig. 33. A. aciculatum, with panicle contracted upright, peduncules three-flowered, male-flowers two, pedicelled, and acuminate, female fiscule and awned. A native of the East Indies in barren places. 34. A. Bladhii, with spikes about eight, hermaphrodite floccule, sfille, awned, neater pedicelled, ciliate, and awnlefs. A native of China, sent from thence by Bladh. 35. A. provinciale, with spikes fiscate, smooth, floceles alternate subfiscile, directed one way, and awned. A native of the south of France, where the seeds were sent by Dahl. Gmelin has omitted the 23d, 27th, and 28th species above enumerated, and introduced the following, viz. A. brevifolium, with spikes lateral and solitary, floccules alternate and remote, and flalk glicinulat and compressed. A. ranum, with spikes terminal conjugate, with double spicule, the male awned and pedicelled, withramous flalk. A. annulatum, with spikes at the top of the flalk crowded and alternate, flowers adpressed and germinate, the male awned and pedicelled, and an erect, ramous flalk. A. nnaclatum, with an erect, ramous panicle, spikes alternate, floceles by threes, thales inelegant and inferior. A. ater, with spikes three and terminal, and floceles all awned. Gmelin suggests that this is the Gir Gir, or Gelfe el Aube of Abyfthin, described by Bruce in his Travels, vol. v. Appendix, p. 47. Gmelin makes a distinct species of the A. murinatum of Koenig, which is above referred to the A. figurr- rnum, and describes it as having a constrained panicle, verticillate spikes, and calyces awnlefs and smooth. Culture. Few of these grasses have been cultivated in European gardens, as they are for the most part natives of the East or West Indies, they would require the protection of a flace. Martyn’s Miller.

Andropogon. See Saccharum and Stipa.

ANDROS, in Ancient Geography, now ANDROS, one of the most fertile and delightful islands in the Archipelago Sea, lies near the south end of Negropont. According to Pliny it was 93 miles in circumference, and had various names, viz. Ceres, Lafia, Nonagria, Eparis, Andantos, and Hydryfla. It is said to have borrowed the name of Andros from one Andrius, who, according to Diodorus Siculus (lib. v.), was one of the generals whom Rhadamantus appointed to govern the Cyclades, after their voluntary submission to him. Conon will have this Andrius to be the son of Anius, and grandson of Apollo and Creusa, and to have been the first who settled in this island. It received the name of Antandros, signifying “for one man,” from its having been given as his ransom by Alcinous, the son of Æneas, when taken prisoner by the Pelagians. The territory of Andros is still one of the most fertile and pleasant countries in the Archipelago, producing all kinds of delicious fruit, and watered with numerous springs, whence it had:
Androsace, Alp.; exsicc., the shield of a man, so called from the form of the calyx, which, in the common species, is large, in Botany, a genus of the penstemon monopetalous class and order, of blue-flowers, and is called by the botanists, Hyaloides. Nulliflora, its characters are, that the calyx is an involucre many-leaved, many-flowered, and very small, the perianth is one-leaved, five-corned, sepulchred, acute, cleft, and permanent; the corolla is many-petalled, and silvery-shaped; the tube ovate and involuted in the calyx; the perianth is more than the calyx; the anthers oblong, obtuse, entire: throat becat with glands; the stamens have very short filaments within the tube; the anthers oblong, acute, and included; the pistil is a globular gynoecium, style filiform, and very short; stigma, glandular and included: the pericarpium is a globular capsule, sitting on a flat calyx, one-celled, opening into five parts at the top; the seeds are very many, roundish, gibbous on one side, and flat on the other; the receptacle is erect and spine. Martyn enumerates 7, Willdenow 10, and Gneiscin 11 species: 1. A. maxima, oval-leaved A. with the perianth of the fruit very large. The flowers of this species appear in April or the beginning of May; the seeds ripen in June, and the plants soon after perish. It grows naturally among corn, in Austria, Bohemia, and other parts of Germany, in the Valais, Piedmont, Carniola and Hungary; and was cultivated here, in 1598, by Gérard. 2. A. elongata, clasper flowered A. with leaves lanceolate, toothed, fruiting umbel elongate, and corollas shorter than the angular calyx, a native of Austria, near Vienna, even in the suburbs; flowers in April, and perfect its seed in June; introduced, in 1776, by M. Thouin. 3. A. septentrionalis, arctic of Hall, toothed A. with leaves lanceolate, toothed, and smooth, and perianth angular, and shorter than the corollas: a native of Lapland, Sweden, Denmark, Switzerland, Germany, Russia, in mountainous situations; cultivated, by Mr. Miller, in 1755. 4. A. villoso, arctic of Hall, fedum of Clf. Chamomile alpina of Bauhin, hairy A. with leaves hairy and perianths flaggy; common in the Swiss Alps, Jura, &c. in the mountains of Austria and Carniola, in the Pyrenees, &c. introduced, in 1768, by professor de Saussure. 5. A. laebe, A. obtusifolia of Allion, arctic of Hall, fedum alpinum, &c. of Bauhin and Ray, gray, with leaves A. with leaves lanceolate and smooth, and umbel many times larger than the involucres, a native of the mountains of Switzerland, Austria, and Carniola, flowering, like the foregoing, in July and August. 6. A. carnea, arctic of Hall, fedum alpinum of Col. awl-leaved A. with leaves awl-shaped and smooth, and umbel equaling the involucres: a native of the Alps and Pyrenees, and introduced in 1768, by professor de Saussure. 7. A. filiformis, with leaves ovate-toothed, petioled, rays of the umbel capillary, and corollas exceeding the bell-shaped calyx; a native of Siberia. 8. A. brevifolia of Gmelin, with leaves lanceolate, petioled, and hispid, and peduncles four times longer than the involucres. This Willdenow ranks as a variety of the next species. 9. A. obtusifolia, with leaves smooth and lanceolate, calyces angular, pubescent, and less than the corolla, and the foliages of the involucres very short (G.) or with leaves lanceolate, narrow at the base and smooth, and the perianths angular and pubescent. It is found on the high mountains of Switzerland, Italy, and Styria. 10. A. odoratissima, with leaves trigonous and ciliate, and perianths flaggy (G.) or with leaves trigonous, lanceolate, and ciliate, the rays of the umbel short, and the perianths angular, and shorter than the corolla; found in the high mountains of Cappadocia. 11. A. pannifera, with leaves leathery-linear, and smooth, two peduncles of the length of the calyx, and segments of the corolla emarginate. Gmel.
AND

Gmel. 12. A. charnigeafume, A. villosa of Jacq., chamejass ite of Bauhin, femen alpinum, &c. of Clair. with leaves lanceolate and narrow at the base, ciliate at the margin, and with flabby perianths. It is found in the high mountains of Austria. Wild.

Culture. These plants being low, and having small flowers, without any great appearance, are precluded only in botanic gardens. All, except the first, require a shady situation. The seeds should be sown soon after they are ripe; if permitted to scatter they will grow of themselves; the annual peris off as soon as the seeds are ripe, but the others, by being merely kept clear from weeds, will live in an open border for several years. Martyn's Miller.

ANDROSACE. See Aretois.

ANDROSACE, in Natural History, a name given by some naturalists to the tubularia aceta bu lum of Linnaeus; this species is variously described by authors; it is corallina (androface) tubulifera simplex petla terminalis radiata of Pallas, androfaces cotyledon folium marum of Lobel, androfaces petrae inascentes of C. Bauhin, pin. herba marina androfaces of Bell. mus. acetabulum marum of Tournefort, plantula lapidea fusculata, and callophilophorum Matthioli of Domat. adn. Besides this Brown describes a variety, in which the target is not radiated. Vide Jamaica, p. 74. The Linnaean specific characteristic is, the fleshes biform and terminating in a calcareous target or cup, which is frutified and radiated. Gmelin. This kind inhabits the Mediterranean and American seas, growing upon shales, slates, &c. it is white, soft, and fragile when dry: the tubes are simple, about the thickness of a straw, and two inches in length. Gmelin. This substance, reduced into powder, has been used in France for destroying worms, and for dropse. Dr. Lewis observes, that it does not promise to be of use in either of these intentions, or to differ from the coralline, which has been used as a vermifuge with little success. The dried androface, when held in the flame of a candle, yields repeatedly for several times a dazzling brightness, which is a phenomenon exhibited also by the coralline.

ANDROSÆMUM, in Botany. See Hypericum.

ANDROSCOGGIN, or Amabiscoogin River, in Geography, a river of America, in the district of Maine, may be called the chief western branch of the Kennebec. Its sources are near Lake Umbagog, and it pursues a southerly course till it approaches near the White Mountains, from which it receives Moose and Peabody rivers; after turning to the east and south-east it passes within two miles of the sea coast, and again turning north, and running over Pejapskag falls into Merry-Meeting Bay, where it joins the Kennebeck, 20 miles from the sea. The lands near this river are good.

ANDROSIA, in Ancient Geography, a town of Aisia Minor, assigned by Ptolemy to the Trocni.

ANDROMOTY, or Andromathy, from andros, man, and 171,1, cut; the anatomy or dissection of human bodies. It is thus called in opposition to zoophyty, which is used to denote that of brutes.

Anatomy is the genus, and comprehends all dissections in general, whether of men, beasts, or plants; and andromogy and zoophyty are the species.

ANDROUET Du Cerceau, James, in Biography, a celebrated French architect, was born at Orleans, or, as some say, at Paris. He was sent for acquiring perfection in his art to Italy, where he was chiefly struck by the triumphal arch at Pola in Istria, to which there is a visible reference in the fylle of his works. Upon his return, though he was a Ready Calvisat, he was made architect to Henry III. who employed him, in 1573, in the construction of the pont neuf at Paris. Henry IV. employed him in enlarging the Tuileries, and continuing the great gallery that connects it with the Louvre. But perfecution obliged him to quit his country in 1583; and the place of his retreat, and the time of his death are not known. He left two sons, one of whom was eminent in his father's profession. He was one of the principal improvers of Architecture in France, and he published several books on the art; as his "Architecture," in 1560, comprehending designs of all the parts and ornaments of buildings; "Lessons in Perspective," in 1576; "The most excellent Idimatics in France," in 1575 and 1607, 2 vols. folio, being a description of 30 royal palaces and other buildings, with figures; "Architecture of Country-houses and Mansions," 1582; and "Roman Edifices, or a Collection of Remains of Antiquity, drawn on the spot."

ANDRUM, in Physiology, a local discharge, epidemic among the people of Malabar, being a peculiar species of hydrocele, or watery tumour of the feromum. The andrum, in the language of the country, is also called perica; sometimes para-physically andu zosaka, q. d. a popular water rupture. Its origin is derived from the vicious quality of the country waters, impregnated with corrosive muriatic salts, the force of which other discharges affect the Malabarians. Its signs, or symptoms, are an erysipelas of the feromum, returning every few months, by which the lymphatics are eroded, and a feverish state of the feromum. The means of prevention is by a heap of sand fetched from a river of the province Mangatti, and thrown in the wells. This is practised by the rich. As to the cure, they have only a palliative one, which is by incision, or tapping and drawing off the water from the feromum, once in a month or two.

ANDRUSA, in Geography, a town of European Turkey in the Morea, 20 miles north-east of Navarin.

ANDRY, Nicholas, in Biography, born at Lyons in 1658, was made doctor in medicine at Rhetom in 1683, having quitted the study of theology, in which he had been engaged several years. In 1697 he was admitted into the faculty of physic at Paris. In 1701 he was made professor of medicine there, and the following year censor or examiner of intended publications in that science. He died in 1742, aged 84 years. He was a considerable contributor to many of the medical and philosophical journals of the time, and in 1702, one of the editors of the "Journal des Savans." He wrote also a variety of other works, of which the principal are, "Cleons and Endoxe," 2 vols. 12mo. Paris; in which he strenuously infilts on the subdivision of the Surgeon to the Physician. "Acrom et ingenium scriptum," Haller says. "De la generation des vers dans le Corps Humain," 12mo. Paris. This was afterwards augmented to two volumes. At the end is an engraving of a tape-worm, of an enormous length, that had been voided entire by one of his patients. "Orthopedie, ou l'Art de prevenir et de corriger, dans les enfants, les disformites du Corps," two vols. 12mo. Paris, 1741; that is, the art of preventing or redressing any defects or deformities in the bodies of children. This is directed to be effected by regimen, exercise, and by various mechanical contrivances, and contains the germ, at the least, of every thing known on the subject at this time. The author composed this work, he says, as a supplement to the Callipedia, the art of getting handsome children, by Quillet; and the Pedotrophia, the art of rearing and nursing children, by
Scavola da St. Martha, two beautiful and well known
poems, of which he gives an analysis in the preface to this
work. The Ortopedia was soon translated into our lan-
guage, as well as into those of most of the countries in Eu-
rope, and still retains its popularity. For the titles of nu-
merous other productions by this writer, see Eloy’s Dict. Hiftor.
de la Medicine.

ANDRA ALA, eriophorius of Vaillant, in Botany, a ge-

nus of the fengesia polygonia angustifolia clas and order, of
the natural order of composite, brief officulote, and class of羽
dicifia. Its characters are, that the common calyx is many-
parted, short, rounded, and villose; the flowers are very many, sub-
equal, and fubulate (in a double row, G.); the compound
corolla is imbricate and uniform; the corollines are henna-
phrodite, numerous, and equal, each ligulate, linear, tran-
curate, and five-toothed; the flamina have five filaments, ca-
pillary, and very short, anther cylindrical, and tubifole; the
kijullum is an ovate germ, style stylem, of the length of
the filamina, ligiinma two, and reflex; no pericarpum, calyx
converging and globose; the seeds are solitary and ovate, the
down capillary, of the length of the calyx, (fesili. G.);
the receptacle is villose and flatihed, (acclavated and hairy, G.)
Martyn enumerates fix, and Gmelin eight species. 1. A.
integrifolia, fonchus lanatus of Dalech. and Bauh. S. villosus
luteus major of Bauh. and Parkinson. hicracium villosum of
Ray, hoary A. with lower leaves runcinate or notched, and
upper ovate-oblong and tomentofe. It is about a foot and
a half in height; the flowers are in small clusters at the top
of theflanks. yellow, and resembling those of bow-thistle;
flowers in July, and its seeds ripen in September. There is a
variety 8. A. finnata, which has the lower leaves indented
and woolly, but those on the stem are entire; it seldom rises
more than a foot high, and supports a few yellow flowers at
top. These are annual plants, growing naturally in the
South of France, Spain, Italy, and Sicily; and cultivated in
the Chelsea garden in 1711. 2. A. cheiranthifolia, A.
glandolosa of La Mare, A. tomentos of Seop. various-
leaved A. with leaves runcinate, upper ones lanceolate and
entire, down glanduliferous. It is perennial, three feet high,
and full of milk. A native of the island of Madeira, and in-
troduced by Mr. F. Maffon, who observed it there in 1777.
3. A. pinnatifolia, with leaves tomentose and pinnatifid,
and calyces tomentose and hairy, hairs rather stiff. There are
two varieties: o. tooth-leaved A. with leaves pinnatifid, and
pinnas dilatant and toothed; a native of Madeira: and 3.
wing-leaved A. with leaves deeply pinnatifid, and pinnas
short and entire. A native of the Canary islands; found by
Mr. F. Maffon; flowering in July and August, and intro-
duced in 1778. 4. A. crithmifolia, famphire-leaved A.
with leaves pinnate, linear, and tomentofe. A native of Madeira,
found by Mr. F. Maffon; flowering from June to August,
and introduced in 1778. This and the last species are bi-
ennials. 5. A. raphanifera, downy A. with leaves lanceolate, un-
divided, dentilatate, acute, and tomentose, and solitary
flowers. As it is very hoary it makes a pretty appearance
interspersed with others, whose leaves are green; but it will
not live abroad except in a dry soil and warm situation. It
has been received from Spain, from the Cape, and from Al-
giers. Linnaeus says, that it is a native of the islands of the
Archipelago. This species has leaves stiffer, more acute,
and more acutely toothed than the other species. 6. A.
lanata, hiracium montanum tomentofum of Dill. Hall.
and Mill. woolly A. with leaves oblong-ovate, slightly
toothed and woolly; and peduncles branching; biennial ac-
cording to Miller, but according to others perennial; flow-
ering in June, and ripening its seeds in August; the whole
plant is white. A native of the south of Europe; culti-
vated in 1732 by Dr. Sherard. 7. A. nigricans, with lower
leaves lyc-rhaped pinnated, peduncles ramose, and down
blackish above. Poir. voy. en Barb. 8. A. uniflora, with
leaves smooth, entire, dentatate, oblong-acute, with a single-
flowered flake. Schrank flor. hav.

Culture. All these plants may be propagated from seeds,
owing those of the hardy fort in spring, where they are to
remain. They require no other attention but to be thinned
and kept free from weeds; the 2d, 3d, 4th, and 5th require
the protection of a greenhouse, in which they will flower all
the Summer, often perfecting their seeds, by which they may
be propagated. The perennial forms may be propagated by
their creeping roots.

ANDRA ALA. See LEONTODON.

ANDUC Island. in Geography, one of the group called
the Maldives, on the call tide, in N. lat. 6° 25'. E. long.
73° 40'.

ANDUJAR, or ANDUXAR, a town of Spain, with a
castle, situate on the Guadalquivir, in the confines of Jaen
and Cordova, and built near the spot on which stood Illurgis,
or Illiturgis, called by the Romans Forum Julian, and now
Andujar el Viejo. Its principal commodity is silk. The
adjacent country abounds with wine, oil, honey, and various
forts of fruit and also game. It is 10 leagues east of Cor-
dova, and 90 miles from Jaen.

ANDUJINA, in Entomology, a species of PAPILLIO
(Nymph. Phal.) found in Ruffia. The wings are dentated,
fulvous, with black spots; under side of the posteri or wings
white, with two brown bands, and dotted behind with
black. Fabricius and Gmelin.

ANDUZE, in Geography, a town of France, in the de-
partment of the Gard, and chief place of a canton, in the
district of Alais, carries on a considerable trade in ferges
and other woollen stuffs; eight leagues north-west of Nimes,
and two south-west of Alais.

ANECDOTES, ANECDOTAE, a term used by some
authors for the title of Secret Historiae; but it more properly
 denotes a relation of detached and interesting particulars.
It is now often used for a biographical incident or minute pa-
assage of private life.

The word is Greek, anedota, q. d. things not yet known,
or hiberto kept secret.

Procopius gives this title to a book which he published
against Julianus and his wife Theodore; and he seems to be
the only per son among the ancients, who has repre fented
princes such as they are in their domestic relation. Varillas
has published anecdotes of the house of Medicis. We have
had repeated attempts for arranging anecdotes under diffe-
rent heads; a “Dictionnaire d’Anecdotes,” in two volumes,
was published at Paris in 1757; and a similar work was
published by Mr. D’Israel in 1753, entitled, “Differtation
Anecdotes.”

Anecdotes is also an appellation given to such works of
the ancients as have not yet been published.

In which fede M. Muratoris gives the name Anecdota
Grecia to several writings of the Greek fathers, found in the
libraries, and first published by him. F. Martene has given
a Thesaurus Anecdatarum Notae, in folio. five vol.

ANE, or ANEDE, otherwise called affées, in Commerce, denotes a
corn-measure, used in some provinces of France, particularly
in Languedoc and Maccouin.

The aene is not so properly a measure as the denomina-
tion or affimblage of a certain number of other measures.
The aene at Lyons confids of six bicics, equal to one fajhter
and three bushels Paris measure. At Macon the aene is
somewhat more.

Aneé is also used for a quantity of wine supposed to be
ANEGADA, in Geography, one of the Virgin Isles, in the West Indies, and dependent upon Virgin Gorda. It is about six leagues long, and so low as to be almost covered with water at high tides. On the south side is Trenure Point. N. lat. 18° 35', W. long. 63°.

ANEGADA Bay lies on the eastern coast of South America, and is formed by the mouth of the river Suaces, which falls into the South Atlantic ocean on the east, in S. lat. 39° 45', and W. long. 62° 50'.

ANEO, a town of Italy, in the kingdom of Naples and province of Otranto, eight miles south-west of Brindisi.

ANEL, Dominic, in Biographia, physician to the court of Savoy, published in 1707, in vol. "L'Art de faire les plaies sans fe servir de la bouche du Homme, &c." Among the instruments by which this was performed was a kind of syphon, "metuendae magnitudinis," of a fearful size, Haller says. But his principal work, and which is still respected, is his "Nouvelle Methode de guerir les fistules la- chrymales," published at Turin, in 1713. He here describes a small and a fine flexible tube, by which he was enabled to open the lachrymal duct, and by means of a syringe to wash away the fowes, and finally heal the passage. This work gave rise to numerous controversial pieces, in some of which his method is eulogized, or the honour of the invention of it denied him. But the academy of surgery, at Paris, declared his method to be equally new and ingenious; and it has certainly led the way to all the improvements that have since made in the method of treating this very troublesome complaint. Haller Bibl. Chirurg. Eloy. Dict. Hist.

ANELLE, or ANIL, in Commerce, the same with indigo. 23 Eliz. c. 9.

ANELLA, in Entomology, a species of Phalaen, of the tinea tribe. The anterior wings are grey, with an oblong brown stripe, and two central, sub-ocellated spots. Fabricius. This species inhabits Austria, is large, and has a fenumaginous abdomen.

ANEMIUS furnus, among Chemists, a wind-furnace, used to make fierce fires for melting, &c. The word is formed of anemos, wind.

ANEMO-CHORD, a name given to the Aeolian harp. An instrument of this kind was constructed by John Jamesz, who was born at Weingen, in the duchy of Wittemberg, in 1739, and having passed through several stages of mechanical employment, became at length musical instrument-maker to the Counts of Artois at Paris. The founding of a harp, hung by accident in a passage admitting a breeze, suggested to him the idea of that instrument, which, in 1790, he first exposed to sale by the name of anemochord.

ANEMOMACHIA, from anemos, wind, and μαχη, fight, in some Ancient Writers, denotes a whirlwind, or hurricane. In which sense, we sometimes also meet with anemone, anemotaraxix, &c.

ANEMOMETER, compounded of anemos, wind, and μετρει, measure, in Mechanics, a machine wherewith to measure the force and velocity of the wind. The anemometer is variously contrived. The first of the kind seems to have been invented by Wolfius in 1708, and first published in his "Aerometria" in 1709, and also in the "Acta Eruditorum" of the same year; afterwards in his "Mathematical Dictionary," and also in his Elementa Matheseos," vol. ii p. 319. In the Philosophical Transactions we have one described, in which the wind being fanned to blow directly against a flat side or board, which moves along the graduated limb of a quadrant, the number of degrees it advances shows the comparative force of the wind.

This machine is moved by means of falls, A, B, C, K (Plate IX. Pneumatick, fig. 60,) like those of a windmill, which raise a weight L, that, till the higher it goes, receding farther from the centre of motion, by felling along a hollow arm M, fitted on to the axis of the falls, becomes heavier and heavier, and presses more and more on the arm, till being a counterpoise to the force of the wind on the falls, it stops the motion thereof. An index then, M N, fitted upon the same axis at right angles with the arm, by its rising or falling, points out the strength of the wind, on a plane divided like a dial-plate into degrees.

It is objected to this machine, however, that it requires a considerably wind to make it work. Leutmannus has contrived another, the falls of which are horizontal, and are more easily driven than the former, and will turn what way forever the wind blows.

In the Philosophical Transactions for the year 1766, Mr. A. Brice describes a machine which has been successfully practiced by himself, of measuring the velocity of the wind by means of that of the shadow of clouds passing over the surface of the earth.

Mr. d'Ons en Bray invented a new anemometer, which of itself expresses on paper not only the several winds that have blown during the space of twenty-four hours, and at what hour each began and ended, but also the different strength and velocities of each. Vide Mem. Acad. Scienc. an. 1734, p. 169. For other instruments of this kind, and their use, see Wind-Gage.

ANEMONE, formed from anemos, the wind, because the flower is not fupposed to open, except the wind blows, or because it grows in situations much exposed to the wind, anemone and pulsatilla of Tourn. anemone, anemone-ranunculus, hepatica of Dill. anemone of Vaill. wind-flower, in Botany, a genus of the polyandria polygynia class and order, of the natural order of multiflora, and ranunculace of Jussieu; its characters are, that it has no calyx; that the corolla has petals in two or three rows, three in a row somewhat oblong; the flamine have numerous filaments, capillary, half the length of the corolla ; anthers twin and erect; the pistillum has numerous germs in a head, fylies acuminate, and fyligmas obtuse; no pericarpium; receptacle globular or oblong, hollowed, and dotted; the seeds very many, acuminate, retaining the stye. Obf. Hepatica of Dill. has a three-leaved perianth, remote from the flower; an involucre. Pulsatilla of Tourn. has a leafy, multifid involucre, with the seeds tailed and hairy. Anemoneoids and hepatica of Dill. have naked seeds, without a feathered tail. Martyn enumerates 28, Gmelin and Willdenow 29 species.

* Hepatica, with a subcalycal flower. 1. A. hepatica, hepatica, with leaves three-lobed, quite entire. The flower lies a year complete in all its parts within the bud; the seeds are oblong-ovate, involved in a fally substance, and many of them abortive; the plant is a mild allringent and corroboration; and formerly used with these intentions, in an infusion like tea, or in powder given to the quantity of half a spoonful at a time; but it is now expunged from the dispensatories, and its use does not extend beyond that of gargarins; it is found wild in Sweden abundantly, in Denmark, Swif droit, France, Spain, Italy, and other parts of Europe, in woods and among bushes, with blue, red, and white flowers, fingle; cultivated here, in 1566, by Gerard. There are many varieties of hepatica, which are common in gardens, as fingle and double blue, fingle and double red or peach-coloured, fingle and double white, fingle and double variegated red and white, fingle and double violet-coloured, and with striped leaves. Parkinson mentions a white, with red flaments. These are some of the chief ornaments of the Spring; the flowers...
flowers are plentifully produced in February and March; before the green leaves appear, and make a very beautiful figure in the borders of the pleasure-garden, especially the double sorts, which commonly continue a fortnight longer in flower than the single ones, and the flowers are much fairer.

**Pulsatilla**, with the peduncle involucrated, and the seeds told. 2. *A. pratensis*, pulsatilla pratensis of Mill, pulsatilla polyanthes violacea, namesakes of Brev., and Helv. woolly-leaved A. with peduncles involucrated, and leaves digitate and multifid. The corolla is white, villose underneath, and the flaments yellow; a native of Siberia, about Tobu, &c., and also of lower Lapland; cultivated here in 1759 by Mr. Miller. 3. *A. foliosa*, with peduncle involucrated, leaves triplicate-pinnate, hairy, flat, acutely glanded, and feeds tall d. 4. *A. labradorica*, with bitterate fragrant leaves, or with bitterate leaves, triplicate foliaceous, thid lancea, foliaceous involucrated, and woolly feeds, with a very short permanent style, Willd. It is distinguished from the A. alpina, which it resembles, by its leaves and feeds; and grows wild about Aigle, &c., in Switzerland, Mont Balbo, M. Cenis, &c. 5. *A. campestris*, pulsatilla vulgaris of Miller, with peduncle involucrated, leaves pinnate, foliaceous, bipartite, obtuse and sinuate, and erect flowers, Willd. The flower is red without and white within, and blooms earlier than our paque-flowers. It grows in the woods, bordering on the mountains, in barren lands, in Sweden, Germany, and the high Alps of Switzerland. 6. *A. cervina*, with peduncle involucrated, leaves pinnate, and flowers nodding. It differs from the last species in the nodding of the flowers, and in the leaves having more pinnae finely cut. Thunberg found it near Jeko, in Japan, flowering early in Spring. 7. *A. pulsatilla*, pulsatilla folio erinaceo et majore flore of Buxton Park, Mor. Ger. Helv. Camer. and Ray. pulsatilla vulgaris of Miller, A. pratensis of Sib. and Wither. paque-flower, with peduncle involucrated, petals straight, and leaves bipinnate. It grows wild on open hills in dry soils, in Sweden, Denmark, Switzerland, France, Italy, Germany, Carniola, Siberia, &c. and in England on chalky downs, as Gogmagog hills, near Cambridge; Barnack heath, near Stanford, in the neighbourhood of Pontefract, near Chelbury, in Oxfordshire, Lesham, Bury, Newmarket, &c. It is perennial, and flowers in April and May. It has the Italian name pulsatilla, from the downy feed being beaten about by the wind. The plant is acrid, and will ruffle blisters; the distilled water will vomit; and it cannot be given with safety in disorders of the lungs. The juice of the petals stains paper green. Goats and sheep eat it; but horese, cows, and swine refuse it. There is a variety with double, and another with white flowers. 8. *A. pratensis*, pupatilla pratensis of Miller, flore minore migrante of Buxh. and Helv. p. vulgaris, satiratiore flore of Clauss. p. flore minore of Ger. p. flore ciano obfolecto, petals reflexis of Helv. p. folis decompositis pinnatis, flore pendulo, limbo reflexo of Hort. Cliff. &c. Meadow A. with peduncle involucrated, petals reflex at the tip, and leaves bipinnate. It is very common in the barren flinty fields of Oxford and Scania, also in Denmark, Fredmont, and in Germany, where it grows in the open fields and flowers in May. It was first cultivated in England by Mr. Miller in 1734, and in our gardens it very much resembles the A. pulsatilla, which would prove a good sublitate to it; the principal distinctions between these species, as they grow naturally, are taken from the flower, which in this species is more pendulous, of a darker colour, and has the apices of the petals reflexed; the item is also said to be less hairy and shorter than that of the pulsatilla; to which may be added, that the leaves of the pratensis are somewhat tom.utofe, while those of the pulsatilla are of a bright green. All the anemones have a considerable degree of acrimony; but this (says Dr. Lewin) seems to puff in the greatest share. In its recent state the plant has scarcely any smell; but its taste is extremely acrid, and when chewed, corrodes the tongue and fauces; and the dried plant like vate retains a considerable shade of acrimony. The root is milder than the other parts. The liquor, obtained by distilling the plant with water, is strongly impregnated with its virtues; and the remaining extract is considerably active. It also appears from some experiments to contain a camphoraceous matter, which was obtained in the form of crystals, of an unctuous taste, and very inflammable. This plant, as well as others of great activity, has been received into the Matern Medica of the Edinburgh pharmacopeia, upon the authority of Baron Stoerck, who recommends it as an effectual remedy for most of the chronic diseases affecting the eye, particularly amaurosis, cataract, and opacity of the cornea, proceeding from various causes. He likewise found it of great use in vesicular nodes, nocturnal pains, ulcers, caries, indurated glands, suppurated meninges, leprous eruptions, melancholy and phlegy. Six cases of amaurosis, three of cataract, and seven of affections of the cornea, we received, were either entirely cured, or greatly relieved by this remedy. The feblebe operation of the medicine was nausea and vomiting, particularly when the distilled water was used; and increased flow of urine, and sometimes gripes and looseness with increased pain at first in the affected part. The dose of the distilled water to adults is about half an ounce, twice or thrice a day; of the extract, reduced to powder with the addition of sugar, five or six grains. Many German physicians have tried the effects of this medicine in diseases of the eyes, with successes; but several others, among whom is Bergius, bear testimony to its inefficacy in these diseases, though they increased the dose beyond that directed by Stoerck. Notwithstanding this, says Dr. Cullen, (Med. vol. ii. p. 216.) "I would fully recommend it to the attention of my countrymen, and particularly to a repetition of trials in that disease, so frequently otherwise incurable, the amaurosis. The negative exception of Bergius, and others, is not sufficient to discourage all trials, considering that the disease may depend upon different causes; some of which may yield to remedies, though others do not." Every part of the plant, except its root, is ordered for medicinal use, and was prepared by Baron Stoerck for that purpose into an extract, or distilled water, and an infusion; but the first form seems to have been preferred, and was given from seven grains to three or four times that quantity, twice or thrice a day. The fluid preparations of the plant are likewise recommended for external use in ulcers and disorders of the skin. The manner of preparing the extract is given in the Edinburgh pharmacopeia. Murray's Mat. Med. vol. iii. p. 93.--101. Lewis's Mat. Med. p. 525. Woodville's Med. Bot. vol. iii. p. 400--11. 9. *A. alpina*, pulsatilla flore albo of Buxh. and Lob. alpina A. with item-leaves ternate, connate, supredecompound, multifid, and feedsraggy tailed. Willdenow mentions as a variety, A. alpina alba major of Buxh. and Burt. This species grows wild on the Alps, Jura, and in Austria, and was cultivated here by Mr. Miller in 1734. 10. *A. stipitata*, pulsatilla lutea of Camer. and Celn. p. tertia alpina of Dalech. A. stipitata of Clus. with item-leaves ternate, connate, supredecompound, multifid, very slender, extremely hairy underneath. It has no smell, and is a native of the Leonz Alps. It is doubted whether it be a distinct species from the last.

**Anemone** with a leafy item, and tailed feeds. 11. *A. coronaria*, pulsatilla folis decompositis ternatis of Hort. Cliff.
Anemone.

Cliff. *A. tenuifolia*, simplici florio de Bauh. narrow-leaved garden *A*. with radical leaves ternate-decompound and involucral leafy, or with radical leaves ternate-decompound, mucronated teeth, leafy involucral and woolly feeds; according to Willdenow, who reckons as varieties *A. tenuifolia* multiplex rubra of Bauh. and *A. angustifolia* multiplex, mutata florea facie quotannis nova of Miller. This species grows naturally in the Levant, particularly in the islands of the Archipelago, where the borders of the fields are covered with it of all colours; but the flowers are fingle and have been rendered double by culture. It was cultivated in France long before it was known in Holland or England: in our gardens, however, it was found in 1596. Parkinson, in 1629, says, that some reckoned 30 sorts with single flowers; and of those with double flowers he gives 12 varieties. Ray enumerates near 300 varieties of this and the broad-leaved sort. The catalogues of our modern florists have usually about 150 or 200. The principal colours in anemones, according to Mr. Miller, are white, red, blue, and purple; and in some these are curiously intermixed; but the most prevailing colours amongst our English raised anemones are white and red; though we have received from France a great variety of blues and purples, which are very fine flowers. The plain colours in the modern catalogues are red, crimson, rose-coloured, purple, blue, clear and pale blue, ash-coloured and white. The principal variegated ones are red and white striped, rode and blue, and white, red, white, and purple; but there are innumerable shades of these and the other colours. A double anemone, in order to be fine, should have a strong upright stem, about nine inches high; the flower from two to near three inches in diameter, the outer petals firm, horizontal, except turning up a little at the end, and the smaller petals within these should lie over each other gracefully, so as to form an elegant whole. The plain colours should be brilliant and striking; the variegated ones should be clear and distinct. 12. *A. hortensis*, pulsatilla folii digitatis Hort. Clif. broad-leaved garden *A*. or hard-leaved *A.* or *A.* with leaves digitate and feeds woollly; or, according to Willd. with radical leaves digitate, lacinia trifid, stem leaves ternate, lanceolate, connate, and subdivide, and woolly feeds. It is found wild, with fingle flowers, in Italy, Provence, and Germany. There are several varieties of this with single and double flowers; it was cultivated here by Gerard in 1597. 13. *A. palmata*, pulsatilla folis palmatis Hort. Clif. *A*. latifolia flava of Bauh. or *A. hortensis* latifolia of Clif. with leaves heart-shaped and subulate, and calyx fixed, and coloured. This species connects the hepaticas with the anemones by its fixed-parted calyx. It was found by Clusius in Portugal, near the Tagus.

**Anemone**, with a naked flower, and tailless feeds. 14. *A. fabri*, with stem one-flowered, involute leafy, and obtuse; found by Gmelin in Siberia. 15. *A. fylvetris*, large white-flowered wood *A*. with naked peduncle and feeds roundish, fhanggy and awnless; or with a stem two-flowered and leafy, leaves triplicate, lacinia trifid and dentated, feeds roundish and woolly, and permanent ligula, according to Willdenow, who mentions as a variety, *A. fylvetris* alba minor of Bauh. &c.; a native of many parts of Germany, found also in Sweden, Alsace, and Siberia; flowering in May, and ripening its seeds in June. 16. *A. fragifera*, with peduncle naked, feeds roundish, woolly, awnless, glades of the leaves acute, and lanceolate; a native of Carinthia. 17. *A. virginiav*, virginian *A*. with peduncles alternate, very long, fruit cylindric, and feeds fhanggy and awnless; or according to Willd. with many flowered leafy stem, triplicate leaves, lacinia trifid acuminate and dentated, acute petals, fhanggy feeds, and very short per-
It is a very ornamental plant, suitable to the flower-garden or plantation, and loves a light loamy soil. 27. A. ranunculoides, A. nemorum hirta of Ger. ranunculus nemorosus hirtus of Bauhin, yellow wood A. with loose involucre multiflorous, involucre three-leaved tubular and foliolous, tallifera seeds, and petals elliptic and by fixus, Smith; or with acute seeds, leaflets gilded, petals rounded, and item mostly one-flowered. It differs from the A. nemorum or wood A. in having a yellow corolla, two petals alternately outer, and two inner, and one having one side within and the other side without the next petal, whereas that has three outer and three inner petals; it differs also in the peduncles being accompanied with two leaflets, the latter of which is furnished with three at the base. This is perennial and flowers in April; grows wild in Sweden, Denmark, Switserland, France, Germany, Autria, Carniola, Italy, and Siberia; and with us in shady places and hedges, near King’s Langley, Herts, and near Worthing, in Kent. 26. A. nasiciflora, ranunculus montanus, &c. of Bauh. nasiciflorus-flowered A. with flowers umbelled (involuced Wild.), and seeds oval-depressed and naked (radical leaves palmated and grafted dentata, Wild.). This grows wild on the mountains of France, Switserland, Autria, Silicia, Siberia, and Cappadocia: introduced here in 1773; by John, earl of Bute. 27. A. faziculata, ranunculus nemorosus, aquilegia foliis, &c. of Pluck. meadow rue-leaved A. with flowers umbelled, item-leaves simple, and verticillate; and radical leaves binate. It grows wild in Virginia and Canada, and was cultivated here in 1768 by Mr. Miller. 28. A. Halleri, with leaves flabby and pinnate, the pinnae acutely lobated, and the involucres multifid, Gmelin from Allion. flor. pedem., or with involucres peduncle, pinnated leaves, leaflets tripartite, acuminate, and villose, and flower somewhat erect, Wild.; a native of the Alps of Piedmont, &c. Willdenow has omitted the fragiater, faziculata and fulprenera, and inserted the following species, viz. A. trifrons, with leaves ternated, leaflets cuneated and slightly cut, and multifid involucres; a native of Brazil, and described by Vahl. A. reflexa, with item tubular, item-leaves by three and ternated, leaflets subtribed, at the tip dentated, and petals lanceolate, oblines, and reflex; a native of Siberia, and very much refembling A. ranunculoides. A. umbellata, ranunculus orientalis anelli folio lanuginoso flore albo of Tourn. with flowers umbellate and involucres, radical leaves tripartite, and lacinius trifid and entire; a native of Cappadocia.

Culture. The plants of this genus are mostly hardy perennials, and may be increased both by seeds and by the roots. The Hepaticae are some of the chief beauties of the Spring; they produce flowers in February and March, before the green leaves appear; and the double sorts especially make a very handsome figure, continue a fortnight longer in flower than the single ones, and afford much fairer flowers. The single sorts are easily propagated by seeds, which they produce every year. The best season for sowing them is the beginning of August, and they should be sown in boxes or pots of light earth, exposed only to the morning sun till October, and then removed to the full sun during the whole Winter. In March, when the plants begin to appear, they should be removed to a shady situation, and frequently watered in dry weather. In August they will be fit to be transplanted; for this purpose a border should be prepared facing the wall, of good fresh loamy earth, in which the plants should be set at about six inches distance every way, and the earth should be closed firmly to the roots, to prevent their being injured by the worms; in the following Spring they will flower their flowers, but it will be an interval of three years before the flowers are strong, and you are able to judge of their goodnes. If at this time any double flowers, or any of a different colour from the red should appear, they should be transplanted into the borders of the flower-garden, where they should continue at least two years before they are taken up or parted. The double flowers, which never produce seeds, are propagated by parting their roots in March when they are in flower. The soil in which they delight is strong and loamy, in an easterly situation exposed to the morning sun.

The palustris (2—10.) may be propagated by seeds, in boxes or pots filled with light sandy earth, and exposed to the morning sun till ten, and secured from it in the heat of the day, and in dry weather often refreshed with water. The seeds are sown in July and August soon after they are ripe. The pots should remain in a shady situation till October, and then exposed to the full sun during the Winter. About the beginning of March, when the plants appear, they should only have the forenoon sun, be refreshed with water in dry weather, and kept free from weeds. When the leaves are decayed, which occurs usually in July, all the roots should be carefully taken up, and immediately planted in beds of light, frehly, sandy earth, about three or four inches auster, and covered to the depth of about three inches with the same light earth. In the following Spring most of these plants will produce flowers, but they will be larger and fairer in the succeeding years, when the roots are larger.

The garden anemones (11, 12.) are natives of the east, from whence their roots were originally brought; but culture has so improved them, that they are become the chief ornaments to our gardens in the Spring. To prepare the soil for these plants, take a quantity of fresh, light, sandy loam, or hazel-earth, from a common or dry pasture, not dog above ten inches deep; mix this with a third part its quantity of rotten cow-dung, and lay it up in a heap; turn this over at least once a month, for eight or ten months, and every time pick out the flones and break the clods. After this mixture has been twelve months made, it will be fit for use, and fully prepared for the garden

In
In the beginning of April the early planted roots will begin to flower, and they will keep in flower near a month, if the weather prove favourable, and they are properly shaded with mats, laid over hoops in the greatest heat of the day: the second, and last planted ones, will follow these; and, in the whole, there will be at least two months fine flowering.

Toward the beginning of June the first planted roots will lose all their leaves, and they must be then taken up and washed clean, and laid dry on mats in the shade; after which they are to be put up in paper bags, and hung up till the time of planting them comes on again. The later planted ones are to be taken up afo as soon as their leaves decay, and not suffered to remain to make new shoots, for then it is too late to remove them.

They are propagated two ways, either by dividing the roots or by sowing. The roots are to be divided as soon as they are taken up out of the ground: they will succeed if broken into as many parts as there are eyes or buds in them; but they flower most strongly, if not parted too small.

The way, by sowing, is this: choose first some good kinds of single anemones, called by the gardeners poppy anemones; plant these early, and they will produce ripe seeds three weeks after the flower first blows. This must be carefully gathered, and in August it should be sowed in pots or tubs, or a very well prepared bed of light earth, rubbing it between the hands with a little dry sand, to prevent several of the seeds from clinging together, and spreading them as even as possible all over the bed; after this a light hair-brush should be drawn many times over the surface of the bed, to pull off any lumps of feed that may yet have fallen together; observing not to bruise off the feed, and as much as possible not to bruise it into heaps. When this is done, some light earth, about a quarter of an inch deep, should be sifted over the bed. If the weather be hot, the bed must be at times covered with mats laid hollow, and gently watered.

In about ten weeks after sowing, the plants will appear, if the season has been favourable, and they are to be carefully defended from the hard frosts by proper covering, and from the heat of the sun afterwards by a movable reed fence. As the Spring advances, if the weather be dry; they must be gently watered, and when their green leaves decay, there must be a quarter of an inch more earth sifted over them, and the like again at Michaelmas; and the bed must be kept clear from weeds, and the following Spring they will flower.

The single or poppy anemones will flower most part of the Winter and Spring, when the season is favourable, and in a warm situation; and they require little culture, for it will be sufficient to take up the roots every other year, and when they are taken up, they should be planted again very early in the Autumn, or else they will not flower till the Spring. There are some fine blue colours among these single anemones, which, with the scarlets and reds, form a beautiful mixture of colours; and as these begin to flower in January or February, when the weather is cold, they will continue for a long time in beauty, provided that the frost is not too severe. The seeds of these are ripe by the middle or end of May, and must be gathered daily as they ripen; otherwise it will often be blown away by the winds.

The roots of wood anemones (23, 24, &c.) may be taken up when the leaves decay, and transplanted into wild meadows, where they will thrive, and in the Spring have a good effect in covering the ground with their leaves and flowers. The blue anemone (24.) flowers at the same time with the foregoing, and intermixed with it, makes a fine variety. Double flowers of both these sorts have been obtained from seeds.

This, and most of the other wild anemones, may be propagated from offsets from the root, which they put out plentifully, and they will grow in most soils and situations Virginia anemone (17.) and some others, produce plenty of seeds, and may be readily increased also that way. Martyn's Miller.

Anemone puffilla. See DRYAS.

Anemone, in Natural History, a species of hydra in Gmelin's arrangement; but which should with more propriety be referred to the actiniae of Linnaeus. As Ellis had placed it with other analogous species before. The body is flexible and flat, the disk sub-hexagonal, and surrounded with numerous tentacula. It is found in the West Indian seas.

Anemone is likewise the trivial name given by fome to the actiniae of Linnaeus in general; hence the French author Dicqueymar calls the anemone puffilla of Linn. Anemone de la premiere epee, anemone stratiotes, anemone de la seconde epee, &c. &c.

The singular reproductive properties of this kind of venus is now sufficiently ascertained, yet it appears that we were in a considerable degree indebted to the accurate observations and experiments of M. Dicqueymarre, in the first instance, for the interesting discovery. This author conjectures that it is owing to the gelatinous texture of those creatures, that they possess the wonderful faculty of reproduction. He observs, that their limbs budded out successively after several amputations; nay, some of them were dissected through the body; and the bals, together with that part of the stump which was left, survived, projected new limbs, and the animal moved and eat bits of muscles, which are its usual nourishment. They appeared to bear a considerable degree of heat, and to live in a vacuum, at least in a very rare air; and they require for a very considerable time no other food than what they find disseminated in sea water.

Dicqueymarre endeavours to prove that sea anemones may be made use of for indicating the different changes of temperature in the atmosphere; but certainly without success, as the observations of later naturalists fully demonstrate. His account of this new kind of barometers is thus related. The sea-water, in which the anemones are placed, must be renewed every day, and this must be their only nourishment; and the observations should be made at intervals equally distant from the renewals of the water. If the anemones be cut and contracted, there is reason to apprehend an approaching storm; that is, high winds, and a rough agitated sea. When they are all shut, but not remarkably contracted, they forebode a weather somewhat less bisterous, but still attended with gales and a rough sea. If they appear in the leaf open, or alternately and frequently opening and closing, they indicate a mean state both of winds and waves. When they are quite open, tolerably fine weather and a smooth sea may be expected. And, lastly, when their bodies are considerably extended, and their limbs divergent, they surely prognosticate fixed, fair weather, and a very calm sea. The gales in which they are deposited may be strong at sea, in the same manner as the compacts, so that the rolling of the ship, may agitate the water as little as possible. These animals are viviparous; for several of them brought forth eight, ten, or twelve young ones in the hand.

The account of the species foetida, as related by Mr. Ellis, in the Philosophical Transactions, affords still more accurate information concerning this tribe of creatures, their internal organization, economy, &c., than the reports of Dicqueymarre. "This compound animal, which is of a tender fibrous sub stance, consists of many tubular bodies, swelling gently towards the upper part, and ending like a bulb.
bolb or very small onion; on the top of each is its mouth, surrounded by one or two rows of tentacles, or fleshes, which when contracted look like circles of heads.

The lower part of all these bodies has a communication with a firm fleshy wrinkled tube, which sticks fast to the rocks, and forms with other fleshy tubes, which creep along them in various directions. These are full of different fizes of these remarkable animals which rise up irregularly in groups near one another.

This fleshy tube, that secures them fast to the rock in flily bottom, is worthy of notice. The tubes that we observe are formed into several parts of it by its infusing itself into the interstices of the coral rock, or by grasping other pieces of shifs, part of which still remain in it, with the fleshy substance grown over them.

This shows us the instinct of nature, that directs these animals to preserve themselves from the violence of the waves, not unlike the anchoring of mufcles, by their thin fleshy filaments that end in feet, or rather like the fleshy hats of the fernulae, or worm-shells, the tree oyler, and the fupper barnacle, &c. whose bases formal to the shape of whatever substance they fix themselves to, grasping it fast with their tentacular claws to withstand the fury of a storm.

When we view the inside of this animal difsected lengthwise, we find a little tube leading from the mouth to the locham, from whence there rise fhrinked small gutes in a circular order, with a yellowish foflubiance in them; these bend over in the form of arches towards the lower part of the bolb, from whence they may be traced downwards to the narrow part of the upright tube, till they come to the fleshy adhering tube, where fome of them may be perceived entering into the papilla, or the beginning of an animal of the like kind, molt probably to convey it nourifhment till it is provided with claws; the remaining part of these flender gutes are continued on in the fleshy tube, without doubt for the fame purpofe of producing and supporting more young ones from the fame common parent.

The many longitudinal fberes that we discover lying parallel to each other, on the inside of the femi-transparent skin, are all inferted in the ferial claws round the animal's mouth, and are plainly the tendons of the mufcles for moving and directing the claws at the will of the animal: these may likewise be traced down to the adhering tube.

Another remarkable creature of this kind is defcribed in Hughes's Natural History of Barbadoes, and which, it is faid, was only found in a bayon in one particular cave.

"In the middle of the bafon," fays that author, "there is a fixed bone, or rock, which is always under water. Round its fides, at different depths, feldom exceding 18 inches, are foon, at all times in the year, infifting out of little holes, certain fubflances that have the appearance of fine vacated flowers, of a pale yellow, or a bright ftraw colour, lightly tinged with green, having a circular border of thick-feft petals, about the size of, and much refeemb ling those of a fingle garden-marigold, except that the whole of this foming flower is narrower at the diftures, or fettling on of the leaves, than any flower of that kind.

"I have attempted to pluck one of these from the rock, to which they are always fixed, but never could effeft it; for as foon as my fingers came within two or three inches of it, it would immediately contract close together its yellow border, and shrivel back into the hole of the rock; but if left undisturbed for about four minutes, it would come gradually in fight, expanding, though at firft very cautionfly, its foming leaves, till at al it appeared in its former bloom. However, it would again recoil with a fputrifying quicknels when my hand came within a fmall diftance of it. Having tried the fame experiment by attempting to touch it with my cane, and a fmal tender rod, the effeft was the fame.

"Though I could not by any means contrive to take or pluck from the rock one of these animals entire, yet I once cut off (with a knife which I had held for a long time out of fight, near the mouth of an hole out of which one of thefe animals appeared) two of thefe foming leaves. These, when out of water, retaining their shape and colour, but being compofed of a num brane-like fubflance, furprizingly thin, it soon thrilved up and decayed."

The fame author further adds, that many people coming to fee these creatures, and ocourning some inconvenience to a person through whole grounds they were obliged to pass, he resolved to defroy the objects of their curiiosity, and that he might do it effectually, caufed all the holes out of which they appeared to be carefully bored and drilled with an iron instrument, fo as to cauf their bodies to a pulp, and yet they again appeared, in a few weeks from the very fame places. It has been fuppofed that this Barbadoes amone may be a species of tubularia rather than actinia.

ANEMONOIDES, See Antemone.
ANEMONOSPERMOS. See Artocoris and Gorteria.

ANEMOSECOPE, derived from anemos, wind, and oscope, I confider, is some times used for a machine invented to foretell the changes of the wind. For this purpofe it fhould confift of an index moving about a circular plate, like the dial of a clock, on which the 32 points of the compass are drawn instead of the hours. The index, pointing to the divisions in the dial, is turned by an horizontal axis, having a handle-head at its outward extremity. This handle-head is moved by a cog-wheel on a perpendicular axis; on the top of which is fixed a vane, that moves with the course of the wind, and gives motion to the whole machine. The whole contrivance is very simple, and nothing is required in the conftuction, but that the number of cogs in the wheel and rounds in the trundle-head be equal; because it is neceffary, that when the vane moves entirely round, the index of the dial fhould also make a complete revolution. An anemoscope of this kind is placed in one of the turrets of the Queen's palace. An account of an anemoscope contrived by Mr. Pickering, may be seen in the Phil. Tranf. vol. xiii. pl. ii. p. 9; and another defcribed by Mr. Martin, in his Philof. Briton, vol. ii. p. 211. See ANEMOMETER and Wind Gage.

It has been observed, that hygroscopes made of cat's-gut, &c. prove very good anemoscopes; seldom failing, by the turning of the index about, to foretell the shifting of the wind.

The anemoscope used by the ancients seems, by Vitruvius's defcription of it, to have been intended rather to shew which way the wind actually blew, than to foretell into which quarter it would change.

Otto de Guericc also gave the title anemoscope to a machine invented by him, to foretell the change of the weather, as to fair and rain. It conftited of a wooden little man, who rofe and fell in a glafs tube, as the atmosphere was more or lefs heavy. Accordingly, M. Comiers has fhewn, that this anemoscope was only an application of the common barometer. See Wind.

The anemoscope of Varec is famous. It is made of the bird's nest, whose feathers are picked, the skin stripped off, visera taken out, and the skin in this state drawn a-new over the bones; this being hung up in the chimney, is said always to direct its bill to the point from whence the wind

AN-END, in Sea-language, denotes the position of any mast, &c. when erected perpendicularly on the deck. The top-masts are said to be an-end, when they are hulled up to their usual elevation.

ANET, in Geography, a town of France, in the department of the Eure and Loir, and chief place of a canton, in the district of Dreux, near the Eure; eight miles north-north-west of Dreux.

ANETHIFOLIUS, in Botany. See Proteus.

ANETHUM, derived from aedus basi, because it runs up quick or straight, a genus of the petunindra elginia clasfs and order, and of the natural order of umbelliferae or umbellifers; its characters are, that the calyx has an umbel universal and partial manifold, the involucre neither universal nor partial, the perianth proper obsolete; the corolla universal, uniform, filaments all fertile; proper; five petals, involute, entire and very short; the flowers have capillary filaments and roundish anthers; the pistillum is a germ inferior, styles approximating, obsolete; ligules obtuse; no pericarpium, fruit subulate, compressed, frayed and bipartite; the seeds are two, subulate, margined, convex, and frayed on one side, flat on the other. There are three species, i. A. graveolens, A. Hortensiae. Common dill, "with fruit compressed." Dill differs from fennel, which it most resembles, in having an annual root, a smaller and lower leaf, the leaves more glaucous, and of a less pleasant smell, the seeds broader and flatter, surrounded with a membranaceous rim, and of a less pleasant flavour than fennel seeds. This plant grows wild among the corn in Spain and Portugal, and also in Italy on the coast, and near Constantinople. It is annual, and was cultivated here in 1597; the seeds of dill are directed for use by the London and Edinburgh pharmacopoeias; they have a moderately warm pungent taste, and an aromatic smell, but not of the most agreeable kind. Water extracts very little of their virtues, either by infusion or digestion for many hours. In boiling, their whole flavour exaltes with the watery vapour, and may be collected by distillation. The distilled water, drawn off to the quantity of a gallon from a pound, is occasionally made the basis of carminative draughts or juleps. The simple water makes better than any in the lopes. Along with the water arks a considerable portion of essential oil, in taste moderately pungent, and tending strongly of the dill. Rectified spirit, digested in dill seeds, readily extracts both their smell and taste; but, by distillation, it brings over very little of the flavour, the active part of the seeds remaining in the extract. The seeds and the plant itself were formerly much used in medicine, and, from the time of Dioscorides, have been esteemed for their carminative and hypotonic powers; and they have, therefore, been recommended in flatulent colics, and certain dyspeptic symptoms proceeding from a laxity of the stomach. Foretus speaks highly of their use in allaying vomiting and hiccups. They are also said to be more effectual than the other seeds of this clafs in promoting the secretion of milk. At this time, however, the seeds of dill are seldom employed, though a simple distilled water from them is directed both by the London and Edinburgh pharmacopoeias. Allaine says, that the essential oil, rubbed on the abdomen, is useful in allaying flatulence and colic; and in a clyster, as a carminative. Lewis. Murray. Woodville.

2. A. fegatum, A. sylvæbre minus of Bauhin, fennulum luftianicum minus annuum ornechi odor of Tourin. "with three stem leaves, and oval fruits." It is annual, and a native of Portugal. 3. A. fumicincum, common fennel, or sinkle, "with gibbous fruits, and stem leaves numerous and deflexed."

It is a native of Germany, Spain, Italy, Madeira, China, &c.; it is binomial, and flowers in July and August, and the seeds ripen in Autumn. Linnaeus distinguishes four varieties of fennel, viz. sweet fennel; common fennel, F. vulgare germanicum of Bauhin. Italian fennel, F. vulgare italicum of Bauhin; and wild fennel, F. Sylviaria of Bauhin. Miller enumerates three varieties, viz. F. vulgare, or common fennel, F. Dolce, or sweet fennel, and F. azoricum, or azorian fennel, or smochio. The common fennel runs from three to five feet high, blue green, with yellow flowers. It has a strong puffy root, which penetrates deep into the ground, and will continue for several years; it has town itself in many places, and appears like a native in England; accordingly it is enumerated among our native plants by Hudson, Wilthorng, Smith, &c. and is now common on chalk cliffs, as about Marazion in Cornwall, in Sussex, about Gravefend and in other parts of Kent, Nottingham Castle, near Spetchly in Worcestershire, Lyttel, and other places in Cambridgeshire, and commonly on the western coasts. The sweet fennel has been supposed to be a variety of the common fennel, but it has been cultivated in the same ground with the other and retained its differences; though botanists affirm, that it will return to its pristine form and qualities. The seeds, which are longer, narrower, and of a lighter colour, are generally imported from Germany and Italy, and are reckoned superior to those of our own growth.

Dietetic and medical qualities of fennel. The tender buds of fennel are eaten in salads; the leaves boiled are used as fonce for fish, particularly mackerel, and they are eaten raw with pickled fish. In Spain they put them up with olives and pickled pork. The seeds of sweet fennel are admitted into the materia medica of the London and Edinburgh pharmacopoeias, and the root of the common fennel in that of Edinburgh. Sweet fennel seeds are useful remedial and carminative, and are sometimes given in powder, from a few to a dram; and sometimes candied. Water extracts the virtue of those seeds very imperfectly by infusion, but carries it off totally in evaporation. By distillation, they impregnate water with their flavour; a gallon of water receiving a strong impregnation from a pound of the seeds. A large proportion of essential oil separates in the distillation, and floats on the surface of the aqueous fluid; in colour yellowish, in smell moderately strong and diffusive, and exactly resembling the fennel, in taste mild and sweetish, like the oil of aniseeds, and like it also congealing, by a slight cold, into a white butyricaceous mass. These seeds contain likewise a considerable quantity in gross oil of the expressed kind, which, when freed from the essential oil, manifests no particular smell or taste. This oil is extracted, with the aromatic matter of the fennel, by digestion in rectified spirit, but separates and rises to the surface upon infusing the filtered tincture. The spirit, gently distilled off, has very little of the flavour of the seeds; the oily matter retains a part both of their taste and smell; but much the greatest part remains concentrated in the extract. The seeds of the common fennel are warmer and more pungent, but less sweet, and of a less grateful flavour than that of the preceding; and there is the same difference in the preparations from them; the spirituous tincture of the sweet fennel is yellowish, but that of the common greenish. The leaves impregnate water by distillation with a grateful flavour, and yield a considerable portion of essential oil. An extract made from them by rectified spirit is no incoherent aromatic. The roots, taking up early in the spring, have a pleasant sweetish taint, with a slight aromatic warmth. They are ranked among the aperient roots, and supposed by some to be equivalent in virtue to the celebrated ginseng of the Chinese, from which, however, they
ANEURISM.

differ in their useful qualities. They are said to be pectoral and diuretic, but now wholly disregarded. The fermentation of the Latins is supposed to be the μεθαιων of the Greeks, by whom it was highly esteemed for promoting the secretion of milk; and this opinion has been confirmed by the experience of some modern authors. The flavonoids, carminative, and other effects ascribed to fenelon, depending upon their stimulating and aromatic qualities, must be less considerable than those of dill, anise, and caraway, though termed one of the same greater hot feeds. Lewis, Murray, Woodville. The fenichel, supposed to have been originally brought from the Azores, has been long cultivated in Italy as a salad herb; and it is also cultivated in some few gardens in England.

Culture. Dill is propagated by sowing the seeds in autumn soon after they are ripe, in a light soil, where they are to remain, at the distance of eight or ten inches asunder. When the plants are come up, they should be hoed, and left at the above distance, and kept clear from weeds. When the seeds begin to be formed, those that are intended to be put into the pickle for cucumbers should be cut up, and those intended for seeds left till they are ripe; and then they should be cut, spread upon a cloth to dry, and beat out for use. The best time to sow the seeds of fenelon is soon after they are ripe; the plants will come up in the autumn or following spring, and require no other care besides being thinned and cleared from weeds: they will grow in any soil or situation. For the fenichel, good seeds must be procured; and a good spot of light rich earth, neither dry nor very wet, selected, the first crop may be sown about a fortnight in March, which, if it succeeds, will be fit for use in July; and, by sowing it several times, a supply may be had for the table till the frosts put a stop to it. When the ground has been well dug and levelled, a hollow drill must be formed by a line and the seeds thinly scattered in it, about two inches apart; the drills should be 18 inches asunder, that there may be room to clean the ground and earth the plants. The plants will usually come up about three weeks or a month after sowing; and then with a small hoe the weeds should be cut between them, and the plants thinned; and thus successively till they are at the distance of seven or eight inches.

The stems of the plants, which rise above the surface of the ground, should be earthed for blanching, about a fortnight or three weeks before they are used, and they will thus be rendered very tender and crisp. The second crop should be sown about three weeks after the first; and the crops should be continued in succession at such intervals till the end of July. In April, May, and June, the soil should be moistier than the first; and in July it should be drier and in a warm situation, and the beds at this season should be watered and shaded. In autumn, if sharp frosts should occur, the plants should be covered with peat-baum, or some light covering; and thus they may be preserved for use till the middle of winter.

Martyn's Miller.

ANEURIN, in Biography, one of the most eminent of the ancient bards of Britain, who was a chiefman of the Otodini, and bore a conspicuous part in the battle of Catraeth, about A. D. 530, the subject of a noble heroic poem composed by him; and which is printed in the Archæology of Wales, with another composition by the same person, entitled Odes to the Months. About the year 540, Aneurin is supposed to have left his territories in the north, in consequence of the growing power of the Saxons; and eventually, some old documents and traditions lay, that he took refuge in the famous monastery of Llantwit, in the country of the Silures, where he died, about A. D. 570.

ANEURISM, or ANEURYSM (from aneurys, dilato), in Surgery, a preternatural dilatation of an artery, or a collection of blood in the cellular membrane, occasioned by the rupture or puncture of an artery. The fistula has been called the true, or genuine aneurism; the second, the false, or fictitious aneurism. The true aneurism is again distinguished into the true circumscribed aneurism, in which the artery is only dilated in one small part, and the tumour is circumscribed; and the true diffused aneurism, when the tumour produced by the dilatation of the artery is of considerable extent, and, as it gradually loses itself in the surrounding parts, its boundaries cannot be accurately defined.

The fictitious aneurism is again divided into the circumscribed fictious aneurism, in which the blood is collected in a sac in some part of the cellular membrane, forming a distinctly circumscribed tumour; and the diffused fictitious aneurism, where the blood is effused into the adjacent cavities of the cellular membrane, forming an unequally elongated tumour. Besides these two principal species of aneurism, a third, the mixed aneurism is reckoned; which consists in a combination of the true and false aneurisms with each other. The fistula subdivision of this species occurs when the external membrane of an artery has been injured by puncture, cutting, laceration with the splinter of a bone, or any other accidental cause, whilst the internal membrane remains untouched. The internal membrane, which is unable of itself to refit the impetus of the blood, is protruded through the orifice in the external membrane, so as to form a tumour, partly by laceration, partly by dilatation of the artery, and consequently by a combination of both causes. The second subdivision occurs, when the face of the true aneurism bursts, and the blood, penetrating into the adjacent cellular membrane, surrounds the face. As the true circumscribed aneurism may be produced wherever arteries exist, and consequently as well in the internal as the external parts of the body; it is divided into the internal and external true circumscribed aneurism. Of the internal, that of the aorta, and of the external, that in the arm or hollow of the knee, is the most frequent.

The true circumscribed external aneurism may be known when the patient remarks an unusual pulsation in any part of his body; when, upon close examination, he discovers a small pulsating tumour on the part, which disappears on being pressed with the finger, and, as soon as the preffure is removed, returns. It also will often disappear when the artery is strongly compressed at some part above it, and returns again as soon as the preffure is removed.

This tumour is not painful, neither is the external skin discoloured. When it has once been produced, it generally goes on increasing with an uninterrupted progress. The larger it grows, the less the pulsation is perceived, which may at length entirely cease when the tumour has become very large. When the face of it is of considerable size, and the pulse under the tumour weak and small, the limb frequently becomes cold, collapsed, pale, weak, or oedematous. The danger is the greatest when the sac bursts, which it does either in such a manner as to leave the external skin, that covers it, entire, in which case the true aneurism is changed into the mixed; or, the sac bursts, together with the external skin, in which case a violent haemorrhage ensues, that proves fatal, unless speedy assistance can be procured. The rupture of the sac is sometimes produced by concussion, or any other external cause, and sometimes spontaneously; in which case it may generally be foreseen for some time before it happens, by the place, which before was particularly dilated and elevated, becoming thin, soft, or bluish.

The internal true aneurism is only to be discovered by an unusual, confluent, and violent pulsation in one part, which cannot be distinctly perceived till the tumour has attained a considerable
ANEURISM.

considerable magnitude; for whilst it is still small, this pulsation is very indistinct. When these tumours have attained to a considerable size, they sometimes at length appear externally, in which case they may easily be ascertained.

It now and then happens, however, that pulsation combined with dilatation does not certainly characterize this disease. (See Delfaut's Obst. Chir. and Medical Communication.) We have known the most careful observers deceived both in tumours of the extremities as well as internally, by forming their diagnoses from the pulsation alone. It is therefore necessary in these cases to take all the circumstances into consideration, from the earliest period of the disorder to its complete formation. When a soft tumour lies immediately upon an artery, the pulsation of the vessel may be felt through the tumour; and when the conglomeration of a real aneurism becomes firm, the pulsation may be obscure or imperceptible.

The proximate cause of the true aneurism is indubitably a preternatural dilatation of the artery in some part, whereby it is rendered unable to reflect the impetus of the blood, in consequence of which it yields, and is dilated into a sac. This may happen from a local injury; for example, a bruise, which may particularly be the cause in those parts of the body where the artery has but few muscular parts to cover it, and is situated near a bone. Probably a sudden and violent elongation or stretching of the artery may occasion this typical weakness; at least we sometimes see true aneurisms arise after violent stretching of a limb, in fractures, dislocations, violent bodily exertions, convulsions, &c. Sometimes, probably, the cause may consist in a violent and inordinate motion of the blood: the artery may also be deprived of its support, by an abscess in any part of the body, and weakened in such a manner as to be unable to reflect the impetus of the blood. In all these, and other similar cases, the aneurism defies the name of a typical disease. Frequently, however, and perhaps in the majority of cases, the aneurism is the consequence of a general dilatation of the whole arterial sytem. According to the experience of Morgagni and others, aneurisms are said to be sometimes produced by the venereal, rheumatic, scorbutic, and other constitutional taints in the sytem. Sometimes these tumours arise spontaneously, without any occasional cause; frequently several of them are produced at the same time in different external and internal parts: we also find in distempering the bodies of persons who have been afflicted with aneurism, that the arterial system is in many parts, nay, even universally, extremely feeble, and easily lacerated. This species of the disease, DIATHESIS ANEURYSMATICA, is, in the present state of our knowledge, to be considered as altogether incurable, as we cannot determine its cause with certainty.

The false or purulent aneurism consists in a rupture of the artery, the blood being effused through the orifice into the surrounding cellular membrane. As this species, like the true aneurism, may be produced both in internal and external parts, it is likewise subdivided into the internal and external. The causes by which a preternatural orifice may be made in an artery, are numerous: e.g. sudden violent exertion of a limb or of the whole body, the lifting of heavy burdens, violent spasms, vomiting, &c. The most frequent cause, however, is a laceration of the artery by some foreign substance, as by the splinter of a bone; and particularly by the lancet, when blood-letting is performed in an unskillful manner, at the bend of the fore-arm, of which we therefore shall treat more minutely than of the other kinds.

In cutting blood at the arm, the artery may be discovered to have been wounded, by the blood being thrown out with unusual force, in an uninterrupted but unequal stream, as it were by jerks; also by its florid red colour; and, which is the most certain sign, by the blood flowing out in an even stream, with less force, when pressure is applied to the artery above the wound. In these cases the dilatation of the blood forming a purulent aneurism is generally owing to the fault of the surgeon, in attempting to stop the hemorrhage too suddenly, either by pressing his fingers upon the wound, or by applying a bandage. The aneurism is produced either in consequence of the orifice in the external skin being displaced in such a manner that the blood can no longer be discharged through it, and must consequently diffuse itself in the cellular membrane; or by the pressure, which is hardly applied, being too weak, so as merely to close the orifice in the skin and vein, but not that in the artery, which consequently discharges the blood into the surrounding cellular membrane. The tumour produced in this manner is commonly of a red, bluish, and, finally, of a black colour.

The false dilated aneurism, arising from this cause, increases in size as long as the internal hemorrhage continues; and if this be not speedily stopped, it produces violent pain and immobility in the limb, nay, at length, inflammation, suppuration, and gangrene. The most recent case of this kind, with which we are acquainted, is related in the fifth volume of the Medical and Physical Journal, by Dr. Adams, of Madeira; and in this case a perfect cure was effected, by long continued pressure on the artery, at the superior part of the arm.

The circumscripted purulent aneurism is produced, when the hemorrhage has at first been stopped by the application of a proper prelitre, but the bandages have been removed too early, and before the orifice of the artery has been closed, so that the blood is effused through the wound, till left, or newly torn open, into the surrounding cellular texture; but, on account of the adhesion of the cellular membrane, produced by the prelitre previously applied, cannot penetrate into its cavities, and consequently collects itself into a mass, near to the orifice in the artery, dilating the cellular membrane into a sac. Sometimes, however, though rarely, this kind of aneurism is produced immediately after the artery has been wounded; namely, when on account of the smallness of the puncture in the artery, the hemorrhage takes place so slowly, that the blood first discharged becomes coagulated, so as to stop the aperture through which the proceeding discharge might pass into the cavities of the cellular membrane, and prevent its discharging itself. Sometimes also the artery is covered with a membrane, aponeurosis, &c., which prevents the diffusion of the blood, and compels it to collect into a mass.

The circumscribed false aneurism consists therefore of a sac, formed out of the cellular texture, and filled with blood, which is situated close to the artery, and communicates with the artery itself by means of the wound in it. In the false aneurism a pulsation can almost always be perceived, and that the more distinctly, the smaller the tumour is. The larger this sac becomes, the more it loses its elasticity, the greater becomes the accumulation of coagulated blood within it, and the weaker consequently becomes the perceptible pulsation, which in very large aneurisms of this kind entirely disappears. At first the tumour is small, and vanishes entirely under the prelitre of the finger; but as soon as the prelitre is removed it appears again. It vanishes in the same manner, when prelitre is applied to the artery above the tumour, and re-appears when that prelitre is removed. As soon as coagulated blood has accumulated in the sac, the tumour can no longer be made entirely to disappear by prelitre, but it becomes hard. It is without pain, and the integuments that cover it, present the natural appearance. When
Aneurism.

Once produced, it increases with a constant and regular progress, and at last becomes enormously large. The flow of the blood into the limb below the tumour is always impacted, the pulsation of the arteries in it becomes feeble and small, and the limb itself is cold, collapsed, torpid, pale, or cyanosed. A series of the neighbouring bones frequently takes place. This aneurism may also at length burst, and produce a fatal hemorrhage, unless promptly ligature can be procured. The part where it bursts previously grows thin, soft, and bluish, or of a purplish aspect.

Notwithstanding the great resemblance which exists between the phenomena of the true and those of the false aneurism, they may however in general be easily distinguished from each other, especially after the full period of their existence. The true aneurism yields to the pressure of the finger very quickly, and reappears as quickly, when the pressure is removed; the false aneurism, on the contrary, yields only in a gradual manner, and appears again in the same manner, as the blood contained in the sac cannot be wholly pressed through the orifice of the artery, nor again effused by flow degrees. Sometimes a whistling sound of noise may be distinctly heard, when the blood is pressed into the orifice, and again pours through it. The pulsation in the false aneurism is always weaker; and, as the tumour increases in size, diminishes much more rapidly than in the true aneurism, in which, even though it has attained a very considerable size, a strong pulsation can always be felt.

The false aneurism becomes sooner hard than the true one, and cannot then be made entirely to disappear by pressure, as coagulated blood is very readily accumulated within it. Moreover, any mistake that may be occasioned by the difficulty of the diagnosis between the two species, cannot often be attended by any bad consequences, as they both require pretty much the same method of treatment. The internal false aneurisms are, on account of the pulsation being much weaker and imperceptible, and vanishing much sooner, than in the true aneurisms, as difficult, may more difficult to be distinguished than these, though in other respects they excite similar symptoms.

When, in letting blood at the arm, the surgeon discovers, by the signs which we have already mentioned, that an artery has been wounded, he must immediately apply a tourniquet to the upper part of the arm, in order first to stop the hemorrhage, and obtain time for applying his bandages with the requisite care and accuracy. The hemorrhage from the vein is to be stopped with the common bandage. But, in order permanently to arrest the hemorrhage and close the wound of the artery, he must apply a compres with great exactness, which must be sufficiently tight entirely to prevent the hemorrhage, and not easily to be removed from its situation; it ought also to close merely the artery itself, without affecting the lateral branches and the veins, left a swelling and mortification might ensue from want of circulation. A pledget, or thin compres, is to be applied, the inner surface of which must be somewhat broader than the opening in the vein, immediately upon the external wound, otherwise the pledget might easily mis the orifice of the artery. All now depends upon this compres being sufficient to stop the wound, its being applied with an uniform pressure, and in such a manner as not to prevent the motion of the blood through the lateral branches and veins. The common bandage used in blood-letting does not answer these purposes so conveniently as by means of Plenks apparatus, which, however, must be applied with great exactness. (J. Jac. Plenks Sammlung von Beobachtungen über die Heilige Genesung der Wundarzneiwissenschaft. Vienna, 1775. 8. p. 195. Allo: Richters Anfangsgründe der Wundarz-

nyk. B. i. § 531. tab. iv. f. 7.) Should a small tumour arise close to the point of the pledge, the apparatus should still be screwed somewhat tighter, as the pressure was possibly not sufficiently strong. If nevertheless the tumour should grow still larger, we may be certain that the compres does not lie upon the wound of the artery; the tourniquet must therefore be immediately applied, and the dressings removed; after which they must be again applied with as great exactness as possible; but first the extravasated blood must be pressed back into the artery, by gently rubbing and squeezing the tumour. If at any subsequent time it should become necessary to remove the apparatus from the limb, the tourniquet must be employed in the same manner.

The apparatus being properly applied, the arm should be suspended, moderately bent, in a sling, and kept as much as possible at rest during the whole course of the cure. Should any swelling appear in the fore-arm, we ought to endeavour to diminish it by diligent friction with spirits and aromatic remedies. Moreover, the surgeon should daily examine whether the bandages remain firm and unmoved in their situations, and as soon as he discovers any tumour, he should proceed as above recommended. The length of time during which the compres ought to remain in its situation, in order to preclude the possibility of a future hemorrhage, cannot be accurately determined; if, therefore, we wish to examine whether it may be safely removed, we ought first to apply the tourniquet, and then take off the apparatus: this being done, we should gradually loosen the tourniquet, and carefully observe whether any tumour is produced at the place of the wound. Should no such tumour appear, we need not use these bandages any longer; it will, however, be proper, for security's sake, (as in some instances the wound of the artery has been known to burst open after) to apply gentle pressure, by means of a compres, to the artery, immediately after the bandages have been entirely removed, in order to diminish the flow of blood through it, and prevent its bursting. Every other motion of the limb should be avoided for some time after.

When a circumscribed false aneurism has already been produced, we may also in that case employ compresion, provided the tumour be still soft, and can be made entirely to disappear by pressure. For, as experience has proved, that the efforts of nature alone may, in such circumstances, sometimes effect a perfect cure of the aneurism, (Repertorium Medicin. u. Chirurg. Abh. &c. B. i. Leipzig. 1792. Svo. p. 807.) we have the greater reason to expect a favorable event from the employment of compresion. The surgeon ought, therefore, after having applied a tourniquet to the arm, as in the former case, to return the blood into the artery, by means of repeated pressing and stroking of the part, and then apply the compres. But when there is already coagulated blood in the sac, and the tumour can no longer be made to disappear under pressure, compresion can be of no use. Should there, however, be but a small quantity of coagulated blood, we may still attempt compresion; for it may sometimes succeed, and when it does not, it produces the advantage of compelling the blood to flow with greater force into the lateral branches, by the dint of which a favourable issue of the operation is secured.

Mr. Theden (in Neve Bemerkungen u. Erfahrungen zur Beriinerung der Wundartzwick. u. Arzneyzebrifl. th. i. Berlin. 1792. p. 30. & th. ii. p. 52.) has added an other method for curing aneurisms, which is applicable even where there is already a very considerable quantity of extravasated and coagulated blood. When, in performing the
the operation of blood-letting, we have wounded an artery, we are to suffer more than the proper quantity of blood, may even so much as to induce syncope, to be discharged, and in the mean time prepare whatever is requisite for bandaging the limb. Three or four compresses, into the lowermost of which we may introduce a small piece of money, are then to be applied in such a manner as to fill up the cavities in the angle of the elbow, which, till the rest of the bandages are ready, is to be prefixed by an attendant so tight upon the orifice of the artery, that no blood can be discharged from it. The bandaging must then be performed spirally, a longuette of the thickness of a finger's breadth must be laid upon the trunk of the artery, and inclosed in the bandage. When the hemorrhage has been stopped in this manner, a quantity of Thedecn's *aqua traumatica* is to be poured upon the whole of the bandages, so as to wet them through and through. The bandages should not be applied too tight at first, if we intend to soak them with the liquid, as it is well known that moisture causes them to contract and compress the limb with greater force, by which means obstruction, tumour, and pain might be produced. Should we, however, have applied them tight, on account of the hemorrhage, we must not wet them till after they have become somewhat loose. As our success depends upon the bandage lying equally close in every part, each turn of the bandage ought to cover half of the former, so that no part of the limb remain uncovered, or not inclosed within the bandage; neither ought any one turn of the bandage to be drawn tighter than the rest.

The first bandages may be suffered to remain on the limb for the space of three or four days, unless they should grow loose at an earlier period, as generally happens when there is a large quantity of extravasated blood, and this soon begins to be separated and re-absorbed. In applying the bandages the second time, we proceed in the following manner. The roller is taken off from the fingers, hand, and fore-arm, and these parts are bandaged anew before the bandages and compresses are removed from the joint and humerus. The roller is then applied over the elbow, and upwards to the axilla. The end of the filet is carried round the neck, in order to prevent the bandages from sliding downwards; and, as an additional security against this accident, the turns of the roller are fewed to each other from the elbow to the arm-pit; the whole is soaked with Thedecn's vulnerary, and kept continually wet. These dressings may remain in this condition for three or more days, provided the bandage becomes neither too tight nor too loose, and applies to the limb in an uniform manner. If, says Mr. Thedecn, all these measures are adopted immediately after the accident, the cure may certainly be effected in the space of eight days, only we must examine very attentively whether, at the place where the artery has been wounded, a new tumour or effusion takes place. Should this happen, we must still continue to apply the bandages for some time; but if the blood has been effused from the beginning into the cellular substance, as sometimes happens, the bandage must be wound till the whole has been re-absorbed, and the wound properly cicatrized. The utility of this method of Thedecn's has been confirmed by several practitioners, especially by the successful cure of a remarkable case, related by Mr. Schimalz. (Seltene Chirurg. u. Medicinische Vorfälle. Leipzig. 1794. 8vo. p. 59.)

But when there is a great deal of extravasated blood in the face, when the tumour is very large, so as not to admit of compression or bandaging, and there is reason to apprehend that the tumour may burst open, an operation must be performed without delay. The tourniquet being applied to the humerus, the skin which covers the tumour is laid open by an incision, made according to the direction of the artery, and carried across the middle of the tumour, so as to extend from one of its extremities to the other. The face, which is generally situated immediately under the skin, is opened in the same manner. The whole of the extravasated blood contained in the face is then taken out, upon which the wounded artery becomes distinctly visible at the bottom, and should be tied. But in order completely to stop the hemorrhage and prevent its recurrence, the artery must be tied not only above, but also below the orifice. Sometimes the surgeon is obliged to apply even three or more ligatures; for when, in the vicinity of the wound of the artery, between the two principal ligatures, any lateral branch is pressed from the trunk of the artery, these must be tied close to the trunk.

Since, after the operation has been performed, every thing depends upon the restoration of the circulation in the limb, by means of the dilation of the lateral branches in consequence of the increased impetus of the blood in them; the surgeon must be particularly attentive in performing the operation, not to injure these branches. For this purpose the two ligatures must be applied as near the wound of the artery as can be done with safety, lest any lateral branch should happen to be included between them, whereby it would necessarily be rendered useless. On this account also we must not use a very broad two-edged needle for applying the ligatures. Mr. Default used an animal needle of his own invention. It is needles, after having tied the vessels, to apply another tourniquet or other bandage to the humerus, with a view to prevent the recurrence of the hemorrhage; for if the ligatures have been skillfully applied, this precaution will be superfluous. In cases where the ligatures become loose, and preceding hemorrhages are produced, the method of Mr. Default has been recommended. At the third hemorrhage, which took place on the eleventh day after the operation had been performed on the femoral artery, he first applied new ligatures above and below, secured them properly, and renewed the bandages. But in order to prevent a recurrence of the hemorrhages, which might have subsisted in consequence of the collapse of the artery and the ligatures growing loose, he applied, four days afterwards, over the ligatures, and at the sides of the artery, small flat pieces of felt wood, fifteen lines long and three broad, which were secured by winding them round with several turns of waxed thread, and were made to compress the artery at the sides with more or less force, by introducing under their upper extremity small wedges of the same wood. By this means the impetus of the blood was restrained, and a new effusion prevented. Suppuration took place in the wound, and on the 35th day after the operation, the small pieces of wood fell off: the ligatures having come away some days earlier.

If it can be avoided the surgeon must take care not to include the nerve in the ligature. Sometimes the extravasated blood, which frequently penetrates behind the artery, separates the nerve from the artery; and in this case we may, in order to avoid including it in the ligature, bend the patient's arm, before applying it, and by means of a somewhat crooked probe, introduced into the open space, raise up the artery, and remove it from the bone, and then introduce the needle, to which the thread is attached, close under the artery. We must, however, not raise up the artery with too much force, lest we should tear some of the lateral branches. Moreover, it is always advisable not to draw the ligature tighter than is necessary for stopping the hemorrhage; lest we should cut through the coats of the vessel,
or conveys the nerve too forcibly, in case it should happen to be removed. Frequently the artery is so much detached from all the neighbouring parts, that the thread may easily be drawn through below it, by means of a common needle with the eye foreclosed. But when the artery is not detached from the subjacent parts, we must make use of a pointed needle having an eye near its point, taking care always not to puncture the nerve, or any tendinous parts, or to injure them in the ligature. The ligature should be secured with a double knot, and the ends of the threads suffered to hang out about two inches long. The tumour may then be immediately loosened, in order that we may see whether the ligature be sufficiently tight; after which the wound is to be dried lightly with lint, and the proper bandages applied; and the patient should be directed to carry his arm in a sling.

The wound is treated after the usual manner till the ligatures have come away. In order to reduce the natural heat in the forearm, and to diffuse the tumour in it, it may frequently be rubbed with spirituous, stimulating, and aromatic applications. M. Pontee affixes us, that no remedy has succeeded so well with him, in restoring the natural warmth and sensibility of the forearm, as dry heat applied by means of hot ashes or sand. The remaining debility may, in general, be speedily removed by using the diuretic, and external tonic applications.

When in consequence of an aneurism in a limb, the surrounding parts are destroyed, when suppuration or caries have taken place in a high degree, or when the limb remains lifeless after the operation, so as to threaten the production of gangrene, amputation becomes necessary. We ought, however, not to be too hasty in proceeding to this operation, since even in cases where gangrene has formed to be unavoidable, the limb has still sometimes been preserved; frequently after the lapse of several weeks the pulp has again become perceptible. We shall here subjoin an account of the method employed with success by Dr. Adams. (Med. and Phys. Jour. vol. vi. p. 535.)

On the 4th of February, 1797, a young baronet was blooded in the vena mediana basilica, and from having worn a tight flannel sleeve, it was not immediately observed that the blood came also from an artery. The orifice having been closed in the usual manner, bled again in the evening, but was stopped before Dr. Adams could see the patient. On the following morning a considerable extravasation of blood took place. In a few days, however, the gentleman was not thought in need of further attendance, although the arm did not recover its ordinary size. Six weeks afterwards a small circumscribed tumour had arisen in the arm, below the original cicatrix; and, on prelure, a very obscure pullation might be felt; it was firmly bound by the fascia, and not at all discoloured or painful. The tumour increased suddenly towards the end of March, with the same circumscribed appearance and an evident surrounding extravasation. Strong prelure was now applied by means of a roller to the upper part of the forearm, exactly upon the trunk of the artery, so as to lessen its pulsation; but the bandage was kept hollow, except over the artery, by several pieces of cane applied along different parts of the limb. Although this degree of prelure was had recourse to with the view of obliterating the large trunk of the artery, an increase of the swelling took place in about ten days, accompanied with flight pain.

The mechanical prelure on the vessel itself was then augmented, until but little pulsation could be felt in the radial artery. Painful sensations near the wrist, along the lower arm, and under the aneurism, were now complained of as intolerable. The fingers were without sensibility, the whole arm was enlarged, the veins became turgid, and the pulse remained very feeble. This process being perverted in, Dr. Adams had at length the satisfaction to obliterate the main trunk of the brachial artery, and to effect a complete cure. The mass of congealed blood, however, was discharged by a gaseous, hot, and abundant set of the arm, about two inches in diameter, which was cicatrizized before the end of July, 1797; and in January, 1798, every unpleasant symptom had disappeared. This plan of treatment, by compression, was adopted by the author without his having known that it had been several times practised with success, in different parts of the continent, for other cases of aneurism.

The treatment of the true external aneurism is in most respects the same as that of the false. If it be small in size, and not of long standing, external allargent applications, as also ice, have been used with very good effect. In trying such an experiment we may, at the same time, apply a tourniquet to the artery, above the swelling, in order to diminish the quantity and momentum of blood flowing into the sac. Compression has likewise been recommended in this species of aneurism, but only at the commencement. Mr. Bruckner, however, (D. Jull. Chr. Frederic Journal f. inner Medicin und Chirurgie, &c. i. ii. 2. Hef. 1797, p. 248.) has used it in a case of a very large and old aneurism in the hallow of the knee, in combination with the remedies before mentioned, together with Thedson's bandage applied from the toes upwards, and the concurrence of other favourable circumstances, with complete success. When compression is applied, it ought to be to every part of the surface of the tumour, as well as in the concide of the artery; and it will act with greater safety and efficacy, if we combine it with Thedson's manner of bandaging, as was done by Mr. Bruckner.

When none of these remedies are applicable, we must proceed to the operation, which (if we follow the old mode) is in no essential circumstance different from that performed in cases of false aneurism. It is, however, to be observed, that it is not advisable to cut through the posterior part of the sac, as in that case the ends of the artery easily contract themselves under the flesh; and if the first ligature should grow loose, they cannot easily be tied again. It appears from experience, that the operation has been far more rarely attended with a successful event in the true than in the false aneurism; it being frequently followed by violent pain, fever, swelling, gangrene, and death. Only in those true aneurisms which are small, and originate from external causes, the surgeon is able to operate with expectations of a successful event. Sometimes, however, these aneurisms require amputation to be performed, and that, under the same circumstances by which the operation is indicated in the false aneurism. But as this operation, as well as the application of the ligatures, very frequently mischieves, all the precautions with respect to the application of the ligatures, that have just been mentioned, are here also to be recommended.

Internal aneurisms, both true and false, are incurable: all that we can do is to retard the progress of the disease, by frequent blood-letting, spare diet, and the careful avoiding of every thing by which the blood may be heated, or its motion accelerated. Moreover, it is very advisable to cover the tumour well, as soon as it appears externally, and to defend it against all external violence, by friction, blows, &c. whereby its bursting might be hastened.

To the cure of the diffused false aneurism two things are requisite; namely, to close the wound of the artery, in order to stop the hemorrhage, and to diffuse the extravasated blood. The first is performed by compression, and the second by applying bandages to the whole limb, according to Thedson's method, and keeping them constantly.
A NEURIS.

Antily wet, either with Theden's vulnerary, or a solution of sal ammoniac in vinegar and water. But if the extravasation spreads farther, and the hemorrhage continues, the operation must be performed without delay.

The mixed aneurism, produced by a laceration of the outer and a dilatation of the inner coat of the artery, is rare, and exhibits no external symptoms by which it can be distinguished from the true aneurism. This, however, makes no difference; for we endeavour to remove it, like a true aneurism, by compression; and when this either does not succeed, or cannot be applied, the operation is performed in the same manner as in the true aneurism. The second species of the mixed aneurism is more frequent. This consists at first of a true aneurism, in which the sac, by occasion of violent motion, concursion, a bruise, or even spontaneously, in consequence merely of too great dilatation, has burst, and produced an effusion of blood, which surrounds the true aneurism. The change of a true into a mixed aneurism may in general be easily discovered. The swelling, which before was circumferential, suddenly spreads; the strong pulsation, which before was dimly perceptible in the tumour, suddenly grows weak and indistinct, or even becomes altogether imperceptible; and the tumour, which formerly was soft, suddenly becomes hard to the touch. The mixed aneurism, on account of the continual effusion of blood, and the increase of the false aneurism, generally requires that the operation should be speedily performed. The most common mode of doing this (perhaps not the most eligible) we have already described; but it is a fact worthy of notice, that the Greeks were acquainted with the practice lately recommended, of tying and dividing the trunk of the artery high above the tumour, as will appear from the following extract. (Etz. Tetr. iv. Serm. iv. cap. 10.) "At vero quod in cautelavitacit fit aneurismus, hoc modo per chirurgam aggredimur: Primum arteriam superiorem ab ala ad cubitem per internum brachi parte simplicem sectionem, tribus aut quatuor digitis infra alam, per longitudinem faciem, ubi maxime ad tautum arteria occurrit; atque ea paulatim demudata, dinceps incumbantia corpora etiam exsanguis, septum et parietes inter maxima eestinationem, et sectionem pollicis tririus explicat, ac adimiantis inbatis congrus delegationes adhibebit." Afterwards we are directed to open the aneurisima tumour at the bend of the elbow, and when the blood has been evacuated, to tie the artery twice, and divide it again. If the ancients had only omitted the latter part of their operation, they would absolutely have left nothing to be discovered by the moderns. What a linking example of the bold manner in which our forefathers have acted without being guided by the lights of anatomy and physiology! But there are two or three passages in Galen, Celsius, and Hippocrates, from which we may infer that even Etius himself was not the inventor of this operation of tying the trunk of an artery, &c. See also Paul. Agnin. lib. vi. cap. 57.

The operation of tying the large trunk of an artery, above the aneurism, seems to have been regarded by Dr. Wm. Hunter as "a proposal which a modern surgeon would think of with horror" (Med. Obs. & Inq. vol. i. p. 325); and Mr. Bromfield calls it a "most extravagant proposition." (Chir. Obser. vol. i. p. 306.) But we are now fully convinced by the evidence of incontrovertible facts, that this operation "may be done with a fair prospect of preserving the limb." Mr. Bromfield relates, that he "once saw an attempt of this kind in a true aneurism, situated in the ham," on which, however, he makes "no further remark, than that the patient died," and that he believes "the embarrassments which occurred, as well as accidents in the operation, will deter the operator from making a second attempt." We have reason to suppose that most of the cases of aneurism on record, in which patients recovered, after long enduring compression upon the artery, have in reality been cases where the vessel was totally obliterated by the pressure; although the opinion of surgeons has usually been, that the orifice of the artery had previously ceased, and healed like a common wound, still allowing the blood to circulate as before. Cases are likewise recorded in which a spontaneous cure of aneurism has been effected; and in these we may also conclude, that the vessels were obliterated as completely as they would have been by a ligature in the modern operation.

In the former part of this article we said, that a popliteal aneurism was one of those which occurred the most frequently. And its situation being such as to afford a full command of the vessel affected, this species of the disease has obtained a considerable degree of attention among surgeons; in hopes of their saving the limb as well as the life of the patient. After having made various trials, it is ascertained that the collateral branches of the femoral artery, of those of the profunda femoris, inculcating with the arteries of the leg, are generally sufficient to keep up the circulation in the lower extremity; and that the incoagulating blood vessels of the arm, in like manner, will dilate and nourish the limb when the humeral artery has been tied; so that in most aneurisms of the extremities, we have a very considerable chance of preserving both the member and the life of the patient.

Paulus Agineta, and after him the Arabian physicians, used to make two ligatures, one above and the other below the aneurism; after which they let out the coagulated blood found within the tumour, and healed up the wound according to the common principles of surgery. But Guillemeau, one of the disciples of Ambrose Paré, pointed out a more simple operation in the case of an aneurism at the bend of the arm; he laid bare the tumour, passed one ligature under the artery above the diseased part, then emptied the sac, and closed the wound. He directs the same plan to be adopted in other cases of aneurism: "Si en quelque autre partie extérieure, il le prefent au chirurgien pareil aneurisme, il peut feurement deover le corps de l'artère vers la racine et partie supérieure, et la lif de même façon, fans autre cernicin." (Les Oper. de Chir. liv. x. c. vi.)

In the year 1714, M. Ansel, of Paris, published an improvement on Guillemeau's method; which consisted in making a longitudinal incision over the aneurism, without wounding it, then making a single ligature upon the vessel, close above the tumour, and leaving the rest to nature. It is almost needless to mention, that in all these operations the surgeon applied a teuniquet upon the affected limb, so as to obtain an entire command of the artery. By this means little Ansel found the tumour disappear, until the whole was absorbed. This practice did not meet the approbation of surgeons in general, although it was often followed by Heilier and some few later operators. Indeed that author thinks it doubtful "whether or no this method will succeed so as to save the limb in wounds of the large crural artery?" Syltem of Surgery, part ii. sect. i. chap. xiii. § 22.) and it has therefore been referred for our contemporaries, to determine the point by actual experiment. We do not wonder, however, at the doubt expressed by Heilier, as he frankly confesses, that "he cannot conceive in what manner the blood is circulated through the lower parts of a limb, after this operation." How would he then have been surprised to learn, that it is even possible for a patient to recover of his limb,
ANURISM.

hub, when the humeral, or the subclavian artery, has been
surrounded by a ligature!

During the month of June, 1785, M. Duffaut, of Paris, 
performed the following operation for a popliteal aneurism
(Socio. de Melchrord, tome x. p. 37—47). Encycl. 
Methodique, Partie Anatom., p. 138; and Sabater de la 
Med. Operationes, tom. ii. p. 72); he made an incision 
about two inches above the arterioscleral tumour in the patient's 
hand; and, when he had expelled the artery, he separated 
the skin from the adjacent nerve, and passed a ligature around it, leaving the arterioscleral tumour. This wound was dressed in 
a simple manner, with a horse's ligature cast around the former 
one, as an additional security against future bleeding. The 
symptoms for the first six days were mild, and presented a 
favourable event; but M. Duffaut thought it prudent to tie 
the second ligature, the 7th, on the fifth day after the operation. 
The swelling diminished rapidly; the ligatures fell off on the 
eighteenth day. and there was a plentiful discharge of bloody 
matter on the day following, which caused nearly the entire 
disappearance of the tumour. In short, the external 
swelling was soon healed, and the cure seemed complete; when, 
unfortunately, the patient died of another complaint.

During the month of December, in the same year, an 
operation, somewhat similar to that of Duffaut, was 
performed by Mr. John Hunter (Sec Lond. Med. Journal, 
of Med. and Chir. Know. voi. i. p. 138). Mr. Hunter's pa-
ient was a coachman, 45 years of age; he was admitted 
into St. George's hospital with a popliteal aneurism, which 
he had first perceived three years previously to his admission, 
and had observed it gradually increase during the whole 
of that period. It was so large as to extend the two 
hampfins laterally, and make a very considerable rising 
between them; it was pulled into the vein; the pulsation was very distinct, and to be 
felt on every side of the tumour. The leg and foot of that 
side were so swelled as to be much thicker than the other, 
and were of a dark brown colour; the swelling was not 
of the ordetaneous kind, but felt firm and brawny, probably 
from the extravasation of coagulable lymph; the tumour 
retained its natural shape, and that it was larger. Pre-
viously to performing the operation, a tourniquet was applied 
upon the upper part of the thigh, but not tightened, that the 
parts might be left as much in their natural situation as 
possible.

The operation was begun by making an incision on the 
anterior and inner part of the thigh, rather below its middle, 
which incision was continued obliquely across the inner edge 
of the factorius medialis, and made large, to give room for 
the better performing of whatever might be thought neces-
sary in the course of the operation. The incision which 
covers the artery was then laid bare about three inches in length, 
after which the artery itself was plainly felt. A flight in-
cision, about an inch long, was then made through this incision, 
side of the vessel, and the incision dissected off; 
by this means the artery was exposed. Having disengaged 
the artery from its lateral connections by the knife, and 
from the other adhering parts by the help of a thin fípula, 
a double ligature was passed behind it, by means of an eyed 
probe. The doubling of the ligature brought through by 
the probe, was cut to as to form two separate ligatures. 
The artery was now tied by both these ligatures, but so 
lightly, as only to compress the sides together. A similar 
application of ligature was made a little lower. The reason 
for having four ligatures, was to compress such a length of 
artery as might, make up for the want of tightness, it be-
ing wished to avoid great pressure on the vessel at any one 
part. The ends of the ligature were carried directly out
at the wound, the sides of which were now brought to-
gether, and supported by a delicate platter and a linen roller, 
that they might unite by the first intention.

The hub was found, some hours after the operation, not 
only to retain its natural heat, but even to be warmer than 
the other leg. The second day after the operation, the 
brawny tumour of the leg was considerably diminished, it 
was became felt, brawny, and a good deal smaller; and the 
anurnsal tumour had lost more than one-third of its size.

Nothing could cause more plainly the action of the absor-
bents, than the change the leg had undergone in to a short a time; the diminution of the tumour probably arising from 
the flood blood it contained having poured into the lat-
teral branches, or into the tributary artery.

The fourth day, on the removal of the dressings, the edges 
of the wound were found united through its whole length, 
excepting where prevented by the ligatures; there was nei-
er pain nor tumefaction in part; but the anurnsal tumour was the same as on the second day.

On the ninth day after the operation there was a consider-
able discharge of blood from the part where the ligatures 
passed off; a tourniquet was therefore applied on the artery 
above, which stopped the bleeding; and, although the tour-
niquet was taken off a few hours after, no blood followed. 
On the tenth day was then placed upon the wound, in the 
direction of the artery, and over that the tourniquet, which 
was not, however, tightened more than was thought suffi-
cient to take off the impetus of the blood in that portion 
of the artery.

On the twelfth day appearances were much the same, only 
that between the compreses and the knee there appeared a 
little fulness, like beginning inflammation. On the eleventh 
day this was gone off, and on the fourteenth some of the lig-
aturess were taken from the smaller discharge, the tumour in the ham being lessened. On the fourteenth day the parts surrounding the anurnsal tumour were more reduced and pliable, so that it was distinctly to be felt.

About the latter end of January, 1786, six weeks after the 
operation, the patient went out of the hospital, the tumour 
at that time being somewhat lessened, and rather tumer to 
the feel. He was ordered to come to the hospital once 
every week, and, in the mean time, to make some degree of 
pressure, by application of a compres and bandage, with a 
view to excite the absorbents to action, which in most cafes 
has a good effect.

About the middle of February the tumour had decreased, 
and was become full firmer. March the 8th, the wound, 
which had cicatrizied, broke out again, and the patient was 
taken into the hospital. About the 8th of April, some of 
the remaining thread of the ligature came away, and an 
flammation appeared upon the upper part of the thigh. In 
the middle of May, a small abscess broke at some distance 
from the old cicatrix, at which opening some matter was 
discharged, but no pieces of ligature were observed. Several 
small threads were, at different times, discharged from the old 
fore, and the swelling subsided; but the thigh soon 
swelled again to a greater size than before, attended with 
considerable pain. In the beginning of July, a piece of 
ligature, about one inch in length, came away, after which 
the swelling went off entirely, and he left the hospital the 8th 
of July, at which time there remained no appearance of 
tumour in the ham, he being in every respect well.

After leaving the hospital, the man returned to his usual 
occupation of driving a hackney-coach, and being, from 
the nature of his employment, much exposed to cold, in 
March, 1787, he was seized with a fever of the remittent 
kind, which carried him off. He had not made any com-
plaint.
ANEURISM.

plait of the limb on which the operation had been performed, from the time of his leaving the hospital.

He died on the 18 of April, 1787, fifteen months after the operation; and leave was procured, with some trouble and considerable expense, to examine the limb, seven days after death, at which time it was entirely free from putrefaction.

The cicatrix on the anterior part of the thigh was scarcely discernible, but the parts under it felt hard. The ham had no appearance of tumour, and was to the eye exactly like that of the other limb; there was, however, a solid tumour perceptible to the touch, filling up the hollow between the two angles of the thigh bone.

The femoral artery and vein were taken out above the giving off the branch called profunda, and a little below the division into the arteries tibiales and tibiales. The arteries and veins that were previous being injected, the whole was carefully dissected.

The femoral artery was impervious from its giving off the artery profunda as low as the part included in the ligature, and at that part there was an obfuscation for about an inch and a half along the course of the artery, of an oval form, the rim of which was solid, becoming thinner towards the centre, and not bony, but ligamentous. Below this part the femoral artery was pervious down to the aneurismatic, and contained blood, but did not communicate with the fac itself, having become impervious just at the entrance.

What remained of the aneurismatic was somewhat larger than an hen's egg, but more oblong, and a little flattened, extending along the artery below for some way; the blood prefilling with greater force in that direction, and dilating that part so as, in some measure, to give the appearance of a separate bag. The fac was perfectly circumscribed, without having the smallest remains of the lower orifice into the popliteal artery; whether this arose from the artery being prefillied upon by the inferior portion of the fac, as appears to be the case in common, or was in consequence of the fac contracting after the operation, I will not pretend to determine; but it contained a solid conglutin of blood, which adhered to its internal surface. A section made of this conglutin, appeared to be composed of concentric lamelle, uniform in colour and consistence.

The popliteal artery, a little way below the aneurismatic fac, was joined by a small branch, very much contracted, which must have arisen either from the profunda, or the trunk of the femoral artery. About two inches below the fac, the popliteal gave off, or divided into, the tibiales.

The profunda was of the usual size, but a good deal oblied, for some length after leaving the femoral artery; the two tibiales, where they go off from the popliteal, were in the same latde.

The trunk of the femoral vein, where it passed along the side of the tumour, must have been obliterated; for at this part it appeared to send off three equal-sized branches, passing over different parts of the aneurismatic; these must have been dilated branches, none of them having the course which the trunk of the vein should have pursued.

These appearances throw some light upon the changes which took place in the limb after the operation. The ligature upon the femoral artery impeded the passage of the blood into the fac so much, as to allow its contents to coagulate, and render the opening into it from the artery impervious. By this a fac was only put to the increase of the tumour, its reduction to the size met with in the dead body, must have been the effect of absorption.

The conclusion to be drawn from the above account, appears a very important one, viz. that simply taking off the force of the circulation from the aneurismatic artery, is sufficient to effect a cure of the disease, or at least to put a stop to its progress, and leave the parts in a situation from which the actions of the animal economy are capable of restoring them to a natural state.

We have given the history of this case at full length, because the method adopted by Mr. Hunter has been since followed, with some slight variations, in almost every part of Europe. There is no reason, we believe, for supposing that Mr. Hunter took the hint of this operation from any of his predecessors: but, as Mr. Home has stated, this practice was the result of an opinion entertained by Mr. Hunter that the artery in aneurismatic cases is generally diseased some way above the fac, and therefore that the common cause of failure arose from tying an unfound artery, not disposed to congeal before the separation of the ligature.

The femoral and popliteal arteries are portions of the same trunk, presenting themselves on different sides of the thigh, and are readily come at in either situation; but where the artery is passing from the one side to the other, it is more buried in the surrounding parts, and cannot be exposed without some difficulty. In performing the operation for the popliteal aneurisma, especially where the tumour is large, the ligature was commonly applied on the artery at that part where it emerges from the muscles. This mode of performing the operation will be found inadequate, if the diseased of the artery extends above the fac; for if the artery should afterwards give way, there will not be a sufficient length of vessel remaining, to allow of its being again secured in the ham. To follow the artery up through the insertion of the triceps mulele, to get at a portion of it where it is found, becomes a very disagreeable part of the operation: and to make an incision upon the fore-part of the thigh, to get at, and secure the femoral artery would be breaking new ground; a thing to be avoided, if possible, in all operations.

Mr. Hunter, from having made these observations, was led to propose, that in this operation the artery should be taken up in the anterior part of the thigh, at some distance from the diseased part, so as to diminish the risk of haemorrhage, and to admit of the artery being more readily secured, should any such accident happen. The force of the circulation being thus taken off from the aneurismatic fac, the progress of the disease would be stopped; and he thought it probable, that if the parts were left to themselves, the fac, with its contents, might be absorbed, and the whole of the tumour removed, which would render any opening into the fac unnecessary.

Numerous trials have lately been made in the different public hospitals which confirm the truth of Mr. Hunter's reasoning. He had several opportunities of performing this operation before he died, and generally with perfect success; but reiterated experience has shown that it is best to secure the artery with only one strong ligature, without separating the vessel from its attachments. Some attempts have been made, both in London and Paris, to improve on this method, by giving a greater latitude for preffure on the artery, (either by the interposition of extraneous substances between the ligature and the vessel, or by employing a broad piece of tape:) but such attempts have been always attended with manifest disadvantages. The only considerable deviation from Mr. Hunter's mode, which we think deserves particular attention, is that of making two firm ligatures, about an inch distant from each other, and then dividing the artery between them; after the manner recommended by Aeusius, thirteen centuries ago, for brachial aneurismas.

In comparing this procedure with that which has formerly been had recourse to in popliteal aneurismas, every
A NEURURISM.

person must be struck with its decided superiority. The operation is in itself simple; it requires but a short time in the performance, and produces little, if any, affection of the constitution; but its advantages are more clearly seen by comparing it with the common mode of operating for the popliteal aneurism. This is, by exposing the tibia in the ham through its whole extent, laying it open, feepining the blood, searching for the two orifice leading into it, and taking up the artery with a ligature both above and below the face. When this operation is over, there remains a large deep seated hole, composed of parts not perfectly in a natural state, and in a mild disadvantageous situation; which face is to supplicate, granulate, and heal; a process that is not soon performed, and which must leave a stiff knee for some time afterwards. Yet this is considering the operation in the most favourable view; for there is always a risk, from the artery being dissected to close to the face, of the patient dying from a secondary bleeding; and when that does not happen, there is still some danger of not being able to support the constitution during the healing of a large face, under circumstances so very unfavourable.

It must not be obliedged, however, that there are some times very embarrassing circumstances attending the new operation, and that patients are not always free from the danger of hemorrhage, even to late as the third or fourth week after the ligature of the artery. Indeed, we can never be certain, in cases of spontaneous aneurism, that the vessel is not dissected along its course, above the point on which the ligature was made. For we have no positive security against the occurrence of an ulceration just under the ligature, from which a fatal bleeding may at any time ensue. But we cannot always effect an adherence of the sides of the artery, so as to produce a perfect obliteration of its cavity, by any means within our power. Besides which, the first surgeons, who most likely fall in their endeavours to include the naked vessel within a ligature; and at length may be compelled to make a fresh incision, or to amputate the patient’s limb, in order to save his life. But, with all these disadvantages, some of which indeed must apply to any kind of operation for aneurism, we are fully persuaded that Mr. Hunter’s plan is, on the whole, the most eligible and successful. It, therefore, cannot but strike us with surprise to find Mr. Benjamin Bell, in the last edition of his surgical works (vol. iii. 1801), declaring it to be doubtful whether this operation, or that of amputating the limb at the upper part of the thigh will fail to be preferred. It only remains for us now to point out some of the principal rules to be observed, in cases where this operation is indicated.

No skill or precaution can avoid the ill consequences which may ensue from a dissection in the trunk of an artery to form aneurisms: the objection, therefore, against tying the artery in this case, is not greater than it would be against amputating the limb at its upper part. If an aneurism have formed spontaneously, the chance of recovery is not equal to that in which the disease arose from an accidental cause; but still, we conceive, the spontaneity of the complaint is not alone a sufficient objection against the method we are recommending. Suppose, then, we have determined on performing the operation; it is first necessary to reduce the quantity of blood in the vascular system, if the patient be plethoric and young. He should also be prepared, by giving him a few doses of laxative medicine, and by a previous course of astringent infiltrates, especially if there be any tendency to an inflammatory diathesis. All things being in readiness for the operation, let a tourniquet be placed on the limb; or let an assistant compress the artery in the belt possible manner, where a tourniquet cannot be applied with advantage. Make your first incision through the skin and adipse substance; deflect readily and cautiously down to the trunk of the vessel you are seeking for; clear away with the scalpel, or with your finger, all the cellular membrane which lies loosely in your way; open the fascial covering peculiar to the artery; then separate the vein and nerve accompanying it, without unnecessarily tearing the vessels from their surrounding attachements; and pass a moderate sized common ligature around the artery, with a sufficient degree of tightness to stop the circulation entirely.

There are the ordinary steps of this operation. But it is probably the safest way to make a second ligature, about an inch below the former, and then to cut between them, as was practised by the ancients, so that the divided extremities of the artery may retire into the adjacent muscular substance. This method has been approved by some of our best surgeons, and seemed to lessen the danger of a secondary hemorrhage. In addition, however, to this security, a new mode of fastening the ligatures has been proposed and practised at Guy’s hospital (see Med. & Phys. Journal for July, 1802.) “An eyed probe, armed with a double ligature, having a curved needle at each end, was conveyed under the femoral artery, and the probe cut away. The ligature near the groin was first tied; the other was separated an inch from the first, and tied also; then the needles were passed through the coats of the artery close to each ligature, and between them; the thread they carried was tied into the knot of the ligature which had been already secured around the vessel; and thus a barrier was formed in the artery, beyond which the ligature could not pass. The wound was united by the first intention, except where the ligature projected: one of the threads separated on the 14th, the other on the 17th day.” This mode of forming the ligatures was found to be so effectual, that Dr. Ailley Cooper was unable, in an experiment made on a dead subject, to remove the thread from its situation, even by injecting water into the artery with all his force. The fuggelion was originally given to him by Mr. Cline, jun., and was put in practice in consequence of two cases having occurred, one to Mr. Cline (the father), and one to Mr. Cooper, in which the ligature slipped off the divided extremity of the blood vessel, after an operation for aneurism.

We have directed the artery to be tied alone; and not to be wantonly detached from the circumjacent cellular membrane, which gives support to the vasta sartorium nourishing the artery. For the same reason, we highly disapprove of all compresses, pads or instruments proposed to be laid in contact with the vessel; as these, we are of opinion, contribute to produce inflammation and ulceration of the artery, with all their dreadful consequences. The wound should be closed with adhesive plasters as accurately as possible, the ligatures hanging out, and a soft supper then passed over the limb for its further support. By this simple method, we have found the operation extremely successful; and there is but little comparative hazard of a secondary bleeding. Nay, it is even certain that ligatures may be made with complete success upon the great artery of the thigh, above Poupard’s ligament; and of the arm above the axilla. (See the cases published by Mr. Keate, Mr. John Bell, and Mr. Abernethy.)

Other methods have been recommended by ingenious men in cases of aneurism; such as that of Mr. Lambert (Med. Obs. and Inq. vol. ii. p. 360.), who proposes to stitch the artery by means of the hare-lip future, a plan which has been once imitated, without success, by Mr. John Bell; and likewise a contrivance of Mr. Defchamps (La Medicine celebre, tome iii. p. 67.), for compressing the arterial tube,
The town the upper which is apprehend, but will furgtons it xvi.), In dilferent the can will have able is by opinion, feem very surgery. This aneurifmal wound does happen?, in the latter case, the artery. The trunk of the vein may keep close to the trunk of the artery, and the very thin frustum of cellular membrane between them, may, by means of a little inflammation, and coagulation of the blood among its fragments, as it were, fold the two orifces of these veins together, fo that there shall be nothing like a canal going from one to the other; and then the whole tumefaction will be more regular and more evident a dilatation of the veins only. In other inffances the blood that rushes from the wounded artery, meeting with some difficulty of admission and passage through the vein, may dilate the cellular membrane between the artery and vein, into a bag, as in a common spurious aneurifm, and so make a fort of canal between these two vessels. The trunk of the vein will then be removed to some distance from the trunk of the artery, and the bag will be situated chiefly upon the underfide of the vein. The bag may put on an irregular form, from the cellular membrane being more loofe and yielding at one place than at another, and from being unequally bound down by the fefsia of the biceps muscle. And if the bag be very large, efpecially if it be of an irregular figure, no doubt ecafualtations of blood may be formed, as in the common spurious aneurifm.

As no surgical operation is required in this cafe, or but very rarely indeed, we need not dwell further on the fubjeft of aneurifmal varix. The difafe has, in different inffances, continued during the space of twenty or thirty years without getting worse, or demanding efpecial attention. See Varix and Varicocele.

ANEWOLONDAKE, in Geography, a small ifland of the Indian Ica, near the coaft of Ceylon.

ANFANTE, a town of Peña, 30 miles north-west of Zarango.

ANFELDTHYDE, or ANFAULTHE, in Lzev., a simple accufation; for the Saxons had two forts of accufation, viz. fimplex and triplices. That was called fimple, when the oath of the criminal, and of two more, were sufficient to difcharge him: but his own oath, and the oaths of five more, were required to free him a triplice accufation.

ANFOSSLI, Pafsquale, of Naples, in Biography. See Pasquale Anfossi. N n 2 ANGADD,
ANGADD, a barren desert of Africa, in the kingdom of Algiers. 25 leagues long, and 18 wide, formerly the seat of a tribe of the same name, and inhabited by Arabs, the chief of which were Guagida, Tenzugga, and Zerul. See Catarina Lottania.

ANGALAI-DIAN, in Natural History, a name given by Buffon to a species of cetacea, called lotenia by Gmelin. See Terra Lottania.

ANGAMALI, a town of the Eady Indies, in Malabar, on the river Aalor.

ANGARA, a river of Russia, which rises in the lake Biakal, and runs into the Emfly, not far from Uffelt.

ANGARAO, a province of South America, in the empire of Peru, subject to the archbishop of Lima, 20 leagues north-west by west of the city of Guaman. It abounds in all kinds of grain and fruits, besides vast droves of cattle both for labour and sustenance.

ANGARI, or ANGARI, in Antiquity, denote public couriers, appointed for the carrying of messages.

Angaros is derived from a word, which, in the Persian language, signifies a service rendered by compulsion. Hence the Greeks borrowed their verb ἄγγαρον, compelles, or cogere, and the Latinis angarari.

The ancient Persians, Budaus observes, had their ἄγγαρον δημοσίαν, which was a sort of couriers on horseback, posted at certain stations or distances, always in readiness to receive the dispatches from one, and forward them to another with wonderful celerity, answering to what the moderns call posts, q. d. postes, as being posted at certain places or stations. This invention of couriers is ascribed to Cyrus. As the Persian empire, after its last conquests, was of a vast extent, and Cyrus required that all his governors of provinces, and the chief commanders of his troops should write to him, and give an exact account of every thing that passed in their several districts or armies: in order to render that correspondence the more sure and expeditious, and to put himself in a condition of receiving speedy intelligence of all occurrences and affairs, and of sending his orders with expedition, he caused post-houses to be built, and messengers to be appointed in every province. Having computed how far a good horse, with an active rider, could go in a day, without injury, he stables built at equal distances from each other, and furnished them with horses, and groomes to take care of them. At each of these places he appointed likewise a post-mate to receive the packets from the couriers as they arrived, and to give them to others, and to take the horses that performed their respective stages, and to send fresh ones. Thus the courier went continually night and day with extraordinary speed; nor did either rain or snow, heat or cold, or any inquietude of the season interrupt his progress. Herodotus (lib. viii. c. 18.) speaks of the fame sort of couriers in the reign of Xerxes. The superintendency of the posts became a considerable employment; Darius, the last king of the ancient Persians, enjoyed it before he came to the crown. Xenophon takes notice, that this establishment continued in his time; and this perfectly agrees with what is related in the book of Esther concerning the edict published by Ahasuerus in favour of the Jews; which edict was carried through that vast empire with a rapidity that would have been impossible without these posts ereoted by Cyrus. See Post.

The angari were also called by the Persians ἄγγαρον; by the Greeks ἀγαρίον, on account of the long journeys they made in one day, which, according to Suidas, amounted not to less than 1,500 stadia.

Angari is also applied figuratively to porters, and others employed in laborious offices, as bearing burdens.
ANGEL, De St. Joseph, his true name was La Brosse, in Biography, a Carmelite monk, born at Toulouse, was sent to Ipiapan as a missionary. After residing several years in Peria, he returned to Europe, and was made provincial of his order in Languedoc. Having acquired a knowledge of the Persian language, he published, in 1681, Pharmacopoeia Persica, et idiomata Persica in Latinum translati, Svo, and, in 1684, Gazophylacium Linguæ Persarum, a Treasury of the Persian Language, fol. at Amsterdam. This work is in great elegance, containing, besides an explanation of Persian words and terms, many entertaining historical anecdotes and observations.

ANGEIOGRAPHIA, composed of αγιος, νας, υδραζυ, and ψυχικι, I describe; the knowledge or description of all kinds of ancient instruments, vesicles, and utensils, both domestic, military, and nautical. Angeography also includes the consideration of the weights, measures, &c. used by the several nations.

ANGEOLOGY, in Anatomy, derived from αγιος, a vesel, and λαγος, a diffuse, the history or description of the vesicles of the body, which are those concerned in the circulation of the blood, and in absorption. See Arteries, Veins, and Absorbing Vesicles. The essential structure of vesicles is the same in all. They are composed of thin skins or membranes, the inner part of which has a highly polished and secreting surface, allowing the contained fluids to glide along it without impediment, whilst the outer surface is rough and cellular, by which the vesel is connected to the surrounding parts. This essential part of the vesel is strong and unyielding, preventing it from rupture, and preferring it of an unvarying circular figure.

ANGIOTOMY. formed of αγιος, κεφαλι, and λαγος, a cut, in Surgery, is used by some to denote an artificial section of the vesicles, as in bleeding.

In this sense angiotomy may be divided into phlebotomy and arteriotomy.

ANGEL, a spiritual intelligent subsistence, the first in rank and dignity among created beings.

The word angel, αγιος, is not properly a denomination of nature but of office; denoting as much as νας, μαστορ, a person employed to carry one's orders, or declare his will. Thus it is St. Paul represents angels, Heb. i. 14, where he calls them ministring spirits; and yet custom has prevailed so much, that angel is now commonly taken for the denomination of a particular order of spiritual beings, of great understanding and power; superior to the souls or spirits of men. Some of these are spoken of in Scripture in such a manner, as plainly to signify that they are real beings, of a spiritual nature, of high power, perfection, divinity, and happiness. Others of them are distinguished as not having kept their first station (Judg vi.). These are represented as evil spirits, enemies of God, and intent on mischief. The devil as the head of them, and those as his angels, are represented as the rulers of the darkness of this world, or spiritual wickednesses or wicked spirits, το πυγμα της τουργειας των άνωγνωκτων (Ephes. vi. 12. Locke's Paraphrase) which may not be unholy rendered, the spiritual managers of opposition to the kingdom of God.

The existence of angels is supposed in all religions, though it is incapable of being proved a priori. Indeed, the ancient Sadducees are represented as denying all spirits; and yet the Samaritans and Caraltes, who are reputed Sadducees, openly allow them: witness Abufaid, the author of an Arabic version of the Pentateuch; and Aaron, a Caralite Jew, in his comment on the Pentateuch; both extant in manuscript in the king of France's library.

In the Alcoran we find frequent mention of angels. The Mussulmen believe them of different orders or degrees, and to be divided for different employments both in heaven and on earth. They attribute exceedingly great power to the angel Gabriel, as to be able to defend in the space of an hour from heaven to earth; to overturn a mountain with a single feather of his wing, &c. The angel Asrael, they suppose, is appointed to take the souls of such as die; and another angel, named Eraphiel, they say, stands with a trumpet ready in his mouth to proclaim the day of judgment.

The heathen philosophers and poets were all agreed as to the existence of intelligent beings, superior to man; as is shown by St. Cyprian in his treatise of the vanity of idols, from the testimonies of Plato, Socrates, Tnafmegillus, &c. They were acknowledged under different appellations; the Greeks calling them deities, and the Romans genii, or lares; and Episcopus seems to have been the only one among the old philosophers who absolutely rejected them.

Authors are not so unanimous about the nature as about the existence of angels. Clemens Alexandrinus believed they had bodies; which was also the opinion of Origen, Cefarius, Tertullian, and several others. Athanasius, St. BaII, St. Gregory Nicer, St. Cyril, St. Chrysolom, &c. hold them to be mere spirits. It has been the more current opinion, especially in later times, that they are substances entirely spiritual, that can, at any time, assume bodies, and appear in human or other shapes.

Ecclesiastical writers make an hierarchy of nine orders of angels. Others have distributed angels into nine orders, according to the names by which they are called in Scripture, and reduced these orders into three hierarchies; to the first of which belong seraphim, cherubim, and thrones; to the second, dominions, powers, and virtues; and to the third, principalities, archangels, and angels. The Jews reckon four orders or companies of angels, each headed by an archangel; the first order being that of Michael, the second of Gabriel, the third of Uriel, and the fourth of Raphael. But though the Jews believe them to be but four, yet it seems, from some intimation in Scripture, that there were seven. Rev. iv. v. viii. 2.

By the ancient councils men are forbidden to frame or give particular names to angels; the only names owned by the church are Michael, Gabriel, and Raphael, to which is sometimes added Uriel. Du-Cange.

Before the Babylonish captivity, the Jews did not know the name of any angel; at least we find none mentioned in the books written before this event. Clemens. Dict. Bib. Authors are divided as to the time of the creation of angels; some will have it to have been before the creation of the world, or even before all ages, that is from eternity; this is Origen's opinion, who, according to Leontius, held that all spirits, angels, devils, and even human souls, were from eternity.

Others hold angels to have been created before the world, yet not from eternity; of which opinion are Nazianzen, and others. Others again maintain that they were created at the same time with our world, but on what day is disputed. Theodore and Epiphanius fix their date from the first day.

Good angels are called angels of light, and guardian angels; and the contrary, who are the devil's ministers, angels of darkness, and fallen angels.

That angels are divine messengers employed on particular occasions for executing the divine will, has been a very prevalent opinion; but what is their sphere of action, and how far it extends, it is not easy to determine. Among the Jews it seems to have been a firm belief and tradition, that every man had a tutelary, or guardian angel from his birth;
AS

ANG

birth; and our Saviour seems to refer to this opinion in Mat. xvi. 19. The heathens were also of the same persuasion, and thought it a crime to neglect the adorations of fire; hence a guide. - Secroot publicly confided himself to be under the direction of Saxon, angel or daemon, as did also Phineas and others; on the other hand, they believed his happiness and good fortune depended. The ancient Persians so firmly believed the ministry of angels, and their superintendence over human affairs, that they gave their names to their months, and the days of their months, and affiliated them distinct offices and provinces; and it is from them the Jews acknowledge that they have received the names of the months and angels, which they brought with them when they returned from the Babylonian captivity: after which we find they also affiliated changes to the angels, and, in particular, the patronage of empires and nations: Michael being the prince of the Jews, as Raphael is supposed to have been of the Persians. Hyke. 


As to the fallen angels, it is not known at what time and for what offence they incurred the displeasure of the Almighty, and plunged themselves into an abyss of wickedness and misery. The time in which this event took place is generally imagined to have preceded the creation of the world; and some have accounted for it by the supposition, that the angels, being informed of God's purpose to create man after his own image, and to dignify his nature by Christ assuming it, and thinking their glory to be thus eclipsed, envied the happiness of man, and so revolted; and with this opinion that of the Mahometans has some affinity, who are taught that the devil, who was once one of those angels who are nearest to God's presence, and named Azael, forfeited Paradise for refusing to worship or pay homage to Adam at the command of God. But whatever was the occasion, or the mode by which it was manifested, pride seems to have been the leading sin of the angels, and it ultimately terminated in rebellion and apostacy. Of these fallen angels there is supposed to have been a great number; and it is apprehended that there was some kind of gradation or subdivision among them; one being considered as their prince, and called by several names, Belselemb, Satan, or Samael, by the Jews; Ahmarian by the Persians; and Ediz by the Mahometans.

The Scripture uses the term angel to denote other beings, or agents, besides those spirits that occupy a rank and dignity superior to man. According to the Hebrew and Samaritan schools, that the word angel does not only mean a spirit, but sometimes also all sorts of powers or instruments which God is pleased to use, and by means of which He acts. So that the elements of the world, fire, air, winds, and storms, in particular visions, and, in the language of Scripture, are called "angels of the Lord, which do his will." In this sense is to be understood the expression of Psalm (I, vi. 4.), that made his angels spirits, his ministers a flame of fire." etc. which maketh winds his angels, and lightnings his messengers. Moreover the Scriptures call a dream, a vision, a voice from heaven, a plague, a burning wind, "Angels of God!" and whatsoever God is pleased to do by them is said to be done by an "Angel of the Lord." For whatever declares God's will, or performs his pleasure, is "his angel." In the New Testament we find mention of an angel, by which God punished the blasphemous pride of Herod. Acts, xxi. 23. We find another mention of an angel moving at certain seasons the pool of Bethesda. John, vi. 4. In the Old Testament, we have also mention of an angel destroying the numerous army of Sennacherib. 2 Kings, xix. 35. The punishment inflicted on David for his sin in numbering the people, is described (1 Chron. xxi. 15.) by God's sending an angel to Jerusalem to destroy it. Acts, xi. 26. By the angel, in Acts, vii. 25, interpreters have understood the extraordinary delitement which proved fatal to him. In the case of David the parricide inflicted upon Israel was the angel of God, as 2 Sam. xiv. 15, 16. Thus the descent of the angel at the pool of Bethel (John, v. 44.) may signify the extraordinary motion of the waters, which was the sign of the miraculous virtue that attended them; although some interpreters conceive that the angel, in this case, was an officer or messenger deputed from the temple to fill the pool, and that the warm current, call in it communicated the healing virtue to the waters. The angel of the Lord which went out and smote the camp of the Assyrians, seems to be explained by the promise of the prophet Isaiah. 1 Kings, ii. 6, 7; in the account of Daniel's preservation, "God sent his angel," seems immediately explained in this sense; and hath shut the iron mouth, that they have not hurt me." Dan. vi. 21. The effect was taking the mouths of the lions; and in what way forever this was produced, under God's special direction and influence it may be said to be done by his angel, though a separate spirit had no concern at all in it. Thus also the Schechah, or material symbol of glory, and the oracle from heaven, may in this sense be called the angel of the Lord, and it is so called in Scripture; and though the true God himself was the only spirit, or intelligent agent, who acted and manifested himself on the occasion.

According to the opinion of those who maintain the fall of angels, they are represented as being cast out of heaven, abandoned to iniquity, and making it their business to seduce mankind, and taking pleasure in doing them all kinds of injury. Others, however, among whom we may reckon Dr. Priestley, consider the fall of angels as very problematical; and though it cannot be said that the thing is absolutely impossible, yet they conceive that it forms, upon the face of it, to be very improbable. Besides, if such exalted beings as these are supposed to have sinned, and to have thereby become obnoxious to the divine displeasure, what end, they ask, could it answer to them to be so afflicting in seducing mankind? Indeed, upon the supposition that their existence and torments were to be everlasting, it may be conceived to give them a kind of gloomy satisfaction to have "brethren in iniquity," for their companions in their sufferings. Priestley's Institutes, vol. ii. p. 453. Bekker, of Amsterdam, maintains, that the word translated "angels" in Jude, v. 6. and also 2 Pet. ii. 4. should be "messengers," adding, that here is no reference to fallen angels, but to the history of the persons left out by Moses to spy out, and make report of the land of Canaan; and to their false and wicked account, so as to discourage their countrymen from obeying the divine command.

Angel is more particularly applied to a person who sustained any particular character or commission. Accordingly there was an officer of the Synagogue, among the Jews, says Prideaux (Conn. vol. ii. 513.), who officiated in offering up the public prayers to God for the whole congregation, and who, as the mouth of the congregation, delegated as its representative, messenger, or angel, speaks to God in prayer for them, was therefore in the Hebrew language called "Sheleiah Zibbor," that is, "the angel of the church." He was also, according to Dr. Lightfoot, called "episcopus," because he overlooked the reader of the law.

In the Apocalypse, the denomination angel is also given to
to the pastors of several churches: who are called the angel of the church of Ephesus, the angel of the church of Smyrna, &c. This name, according to Prideaux (ubi supra), was borrowed from the synagogue. For as the Sheshach Zibbor, in the Jewish synagogue, was the prime minister to offer up the prayers of the people to God, he was also the bishop who governed over the church, the prime minister to offer up the prayers of the people to God in the church of Christ. Du Cange adds, that the fame name was annually given to certain popes and bishops, by reason of their singular sanctity, &c.

Angel is also used, in Commerce, for an ancient gold coin struck in England; so called, from the figure of an angel impressed upon it. It weighed 4 pennyweights, and was 23½ carats fine.

Its value in 1 Hen. VI. was 6s. 6d., in 1 Hen VIII. 7s. 6d., in 34 Hen. VIII. 8s. in 6 Edw. VI. it was 10s., in 2 Eliz, it was 10s. and in 3 Eliz. the same. And the half angel, or, as it was sometimes called, the anglel, was the moiety of this; and the quarter angelot proportionable.

The angel now subsists no otherwise than as a money of account, denoting 10s.

The French have also had their angels, demi-angels, and angelots; but they are now disused.

Angelic, in Ichthyology, the English name of the squamae squatina of Linnaeus; the French call it ange. See Squatina.

Angel, or Angles Road, in Geography, lies on the starboard side of Milford Haven, within the rocks, in the mid-channel of the haven to the call.

Angela, or Osigua, a town of Africa, in the kingdom of Barca, situation towards Egypt. Its territory, though mostly defert, hath good water, and produces dates.

Angelical, or Angelical, something belonging to, or that partakes of the nature of angels.

We say an angelical life, &c. St. Thomas is styled the Angelical Doctor. The angelical salutation is called by the Romanists Ave Maria; sometimes simply angelus.

Angelic garment, Angelica officinalis, among our Apothecaries, was a monkish garment which laymen put on a little before their death, that they might have the benefit of the prayers of the monks.

It was from them called angelical, because they were called angels, who by these prayers anima sanitatis suaviterur. Hence, where we read the phrase monachus ad suavitationem in our old books, it must be understood of one who had put on the habit when he was at the point of death.

Angelica, in Botany, a genus of the plants of the digyna class and order, and of the natural order of umbellata, or umbelliferae. Its characters are, that the calyx has an universal umbel, manifold, and roundish, and partial, when flowering, exactly globular; the universal involucre three or five-leaved, small; partial, eight-leaved, and small; proper, perianth five-toothed, fiercely observable; the corolla universal, consists of all fertile; partial, petals five-angled, lanceolate, flatish, incurved, and endospermous; the flower has simple filaments, larger than the corolla, and simple anthers; the pistil has a germ, inferior style reflex, and stigma obtuse, no pericarpium; fruit roundish, angular, solid, and bipartite; seeds two, ovate, flat on one side, and margins; convex on the other, scored with three lines. Martyn enumerates six, and Gmelin seven species. 1. A. apiacea, ang. officinalis of Miller, garden angelica, with the odd leaflet of the leaves lobed. The root is thick, fleshy, and savoury; the stalk is erect, about the height of five feet, ramous, hollow, round, smooth, and furrowed; the leaves are ternate and pinnate, leaflets are ovate-lanceolate, acute, gilled, and acutely serrated, smooth, fleshy, puberulent, with the old ocrea bipartite; the petiole at the base is membranous, and very much dilated and ventricose; the umbels globose and multitrate; the umbel's rufciceps denser and hemispherical; the involucres consisting of a few linear deciduous leaflets; the involucella suborbicular, linear-lanceolate and short; the calyx small, the petals ovate, reflex, and white-green; the fruit elliptic- roundish, compressed, and acutely ribbed. It is a native of the northern parts of Europe, and was cultivated here in 1568. With us it is found at Brewood, about seven miles north-west from Birmingham, is biennial, and flowers in September. In a cultivated state, says Withering, it is supposed to be a garden angelica, which is used in some distilled waters, and candied by the confectioners.

Mr. Miller makes a distinct species of the angelica, which grows naturally in Hungary, and some parts of Germany; about twice the size of the common sort, with much larger leaves, more deeply sawed on the edges, with the umbels much larger, and the flowers yellow. 2. A. flavescens, water A. or wild A. with leaflets equal, ovate-lanceolate and ferrate; the stem erect, about four feet high, round, smooth, and fleshy; the leaves bipinnate, and subglabrous, with leaflets ovate, distinct, acutely serrated, and ferrures mucronate; the umbels hemispherical and multitrate; the umbel's rufciceps denser; the involucella suborbicular, and very narrow, and sometimes none; the involucros polyphyllous and flavous; the calyx very visible; the petals ovate, reflex, and fleshy, and the fruit small; it is perennial, found in moat woods and hedges, and by the sides of rivers, and flowers in July. 3. A. verticillaris, with leaves very much divided, leaflets ovate and ferrate, and stem villous, with peduncles; a native of Italy and Silezia, introduced in 1774 by M. Richard. 4. A. atropurpurea, purple A. with the outermost pair of leaves coasied, and the terminal leaf petiolate; a native of North America, and cultivated by Mr. Miller in 1759. 5. A. heidges, thinning A. with leaflets equal, ovate, and galea ferrate; a native of Canada, flowers in June, and the seeds ripen in Auguill. 6. A. Rozalina, panax alpina, &c. of the Boecke, with leaves bipinnate, leaflets lanceolate, ferrate, and decurrent; a native of the Apennines and Piedmontese mountains, found on the former by M. Raoul, an apothecary at Perpignan, whose trivial name. 7. A. lobata, with the inferior leaves biserrate; the leaflets petiolate, ovate, and ferrate; the superior ferrate. 8. A. incisifolia, with the leaflets entire and petiolate. Martyn's Miller, Gmelin, Willdenow, Smith, Flor Brit.

Culture. All the sorts may be increased by seeds. The common angelica delights in a moister soil, in which the seeds should be sown soon after they are ripe; and when the plants are about six inches high, they should be transplanted at a large distance, about three feet asunder, on the sides of ditches or pools of water. In the second year they will flower, and their stems may be cut down in May, and heads will be put out from the sides of the roots, and thus they may be continued for three or four years; but if they had been permitted to feed, their roots would perish from after. If they are permitted to feed, they last but two years.

Dietetic and medical uses. The stalks of garden angelica were formerly blanched, and eaten as celery. The young shoots are in great esteem among the Laplanders. In Norway bread is sometimes made of the roots. The gardeners near London, who have ditches of water in their gardens, propagate great quantities of this plant, which they sell to the confectioners, who make a sweet-meat with the tender stalks.
flasks cut in May. Bohemia and Spain are supposed to produce the best; the college of London formerly directed the roots brought from Spain only to be kept in the shops. Linnæus, however, affirms us, that the plant proves most vigorous on its native northern mountains, and gives a decided preference to the root dug here either early in the Spring, or late in the Autumn. The roots of angelica are one of the principal aromatics of European growth, though not much regarded in the present practice. They have a fragrant agreeable smell, and a bitterish pungent taste; on being chewed they are first sweetish, afterwards acid, and leave a glowing heat in the mouth and fauces, which continues for some time. The leaf, leaves, and feeds appear to possess the same qualities, though in an inferior degree. Dr. Lewis says, that on wounding the fresh root early in the Spring, it yields, from the inner part of the bark, an mucuous, yellowish, odorous juice, which, gently exsiccated, retains its fragrance, and proves an elegant, aromatic, gummy resin. Rectified spirit extracts the whole of the virtues of the root; water but very little; and, in distillation with the latter, a small portion of very pungent essential oil may be obtained. The Laplanders extol the utility of angelica, not only as food but as medicine. For coughs, hoarseness, and other disorders of the blood, they eat the flaks roasted in hot ashes; they also boil the tender flowers in dairy milk till it attains the consistence of an extract; and they use this to promote perspiration in catarrhal fevers, and to strengthen the stomach in diarrhœa, &c. According to the explanations of Sir John Pringle, the herb is antiseptic, but the efficacy of the leaves is soon lost by drying them. The feeds also, which come nearest to the roots, can scarce be kept till the Spring after they are gathered, without the loss of their vegetative power, as well as a diminution of their medicinal virtue. These are the only part of the plant which is ordered by the London College, and that only in compound spirit of aniseed. The aromatic quality of the root is more considerable than that of any other part; but as many other simples surpass angelica in aromatic and carminative powers, it is seldom employed in the present practice. All the parts of the wild angelica are similar in quality to those of the former species, but rather weaker, and the former may be more easily procured. Cows, goats, and swine eat it, but horses refuse it. Lewis Murray, Woodville.

Angelica. See *Eupodium, Chelophyllum, Cicuta, Laserpitium, Selinum, and Smyrnium.*

*Angelica rue.* See *Arabia.*

*Angelica water* is one of the compound waters of the shops; thus called from the *angelica* root, which is the chief ingredient in the composition, and the most active part of that plant. Neumann.

*Angelica gravis,* a technical name given to Anderson's Scots pills.

*Angelica* was also a celebrated dance among the ancient Greeks, performed at their feasts.

It was thus called, from *aglbidon, nuncius, messengers,* because, as Polybus affirms us, the dancers were drest in the habit of messengers. *Angeli,* an ancient order of knights, instituted in 1154, by Ifaacus Anglicus Flavius Comnæus, emperor of Constantinople.

They were divided into three classes, but all under the direction of one grand master. The first were called *torquati,* from a collar which they wore and these were fifty in number. The second were called the *kings of justice,* and were ecclesiastics. And the third were called *kings of lords.*

Julliniani will have this order to have been instituted in the year 313, by Constance; and supposes the occasion thereof to have been the appearance of an angel to that emperor, with the sign of a cross, and these words, *In hoc signo vinces;* but that there was such a thing as any military order in those days, is a mere fable.

*Angelici,* in *Ecclesiastic History,* were also a sect of ancient Christians. St. Anguillus supposes them thus called from their yielding an extravagant worship to angels, and such as tended to idolatry; though Epphasinus derives the name from their holding, that the world was created by angels.

*Angelina zanoni acris,* in *Botany.* This is a tree of walt lize, sometimes above sixteen feet thick, growing on rocky and sandy places in Malabar, in the East Indies. It bears ripe fruit in December, and continues bearing for a whole century.

The dried ripe leaves, are laid to alleviate pains and fluxes in the joints, and diffuse an intumescence of the teats occasioned by a contusion, or any external violence; as also an *hydrole,* or *pneumatocele.* It is efficacious likewise in some veneral complaints, and hemorrhoidal fluxes.

*Angelio, Peter,* in *Biography,* a modern Latin poet, was born in 1572, at Barga, a castle of Tuscany, and hence usually called Bargasus. Having made a great proficiency in Latin and Greek at the early age of ten years, he was prevented from pursuing his studies by the loss of his parent, and obliged to enter into the army. Afterwards, however, he renewed his application to literature, and studied law under Alciatus, at Bologna. But he was obliged to leave this place on account of some seditious verses which he wrote, and to go to Venice, where he was employed by William Pellicier, the French ambassador, in correcting the Greek MSS. which were copied for his sovereign Francis I. In 1542 he removed to Constantinople, where his life was brought into danger by his zeal for the honour of his own nation, which urged him to kill a Frenchman who spoke disrespectful of it. From hence he escaped first to Genoa, and then to Milan; and from Milan he removed to Reggio, in Lombardy, and accepted an invitation to become public preceptor of Greek in that place. After a residence here of three years, he was invited by Cofmo I. duke of Florence, to a professorship, first of belles lettres, and afterwards of the ethics and politics of Aristotle, in the university of Pisa, where he continued 17 years. During his abode in this place, he defended it, with the aid of the scholars of the university, against an attack of Peter Strozzi, in the war of Sienna. In 1575 he was invited to Rome by the Cardinal Ferdinand de Medicis, who entertained him liberally at his court, and recompensed him for the dedication of his poems, with a donation of 2000 gold florins. His latter days he spent at Pisa, living at ease on the munificence of his sovereign; and he died there in 1596. His works in Italian and Latin, both prose and verse, are numerous; but to his Latin performances he chiefly owes his reputation. In five books of miscellaneous Latin poems, he has happily imitated the style of Catullus. His "*Cynegetic," or *Chace,* in six books, first printed in 1568, and laid to be the labour of 20 years, is reckoned one of the best specimens of modern Latinity, and highly commended by Lombin, De Thou, and Poffevin. His "*Syrias,*" an epic poem in 12 books, on the expedition of Godfrey de Bouillon to the Holy Land, was composed in his old age, and though it pleases elegance, it wants the majesty required for such a theme.

*Angelimus,* *Angelici,* in *Ecclesiastic History,* certain Christians, thus denominated from *Angelum,* the name of a place in Alexandria, where their first assemblies were held.
The Angelics appear to have been the same with what are otherwise called Senervi, sometimes Thedofanes and Damiani, from the names of their readers: sometimes also Tabellionijes.

They made their first appearance in the time of the emperor Anastasius, and pope Symmachus, about the year of Christ 494.

The distinguishing tenets of the angelics were, that the several persons of the Trinity had no distinct essence, substance, or deity, but only a subsistence or deity in common, or indivisible among them.

ANGELI, in Geography, a river of North Wales, which runs into the Dee.

ANGELI. See Angelin.

ANGELIN, Port of, is a harbour on the South Sea coast, in the middle between St. Pedro and Capoht; a broad open bay with good anchorage, but bad landing; and the Spaniards reckon it as good a harbour as Gualtan.

ANGELO, St. a small but strong town of Italy, in the Capitanata. There are several other towns and cities of the same name in Italy, particularly the city of St. Angelo at Rome. N. lat. 41° 45′. E. long. 15° 56′.

ANGelo Monte, St. a small part in N. lat. 41° 43′, and E. long. 11° 47′, within Cape Velletri, on the west side of the gulf of Venice, is so called from a high mountain within the cape, and the first land made after entering the gulf.

ANGelo Re, St. lies on the coast of Brazil, to the north-west from Cape St. Auguinile, and is a large opening, without depth of water, blocked up with muds, and rendered useless for navigation.

ANGelo Buonarotti, Michel, a celebrated painter, was born in the territory of Arezzo, in Tuscany, in 1474, and educated at Florence, where, purifying the best of his natural genius for sculpture and painting, in opposition to the remonstrance of his parents, he became, at the age of 14, the disciple of Domenico Ghirlandajo, who has gained great reputation by the artists which his school produced. Michael Angelo soon became superior to his instructor; and such was his uncommon merit, that Leonardo da Medici took him into his service, and employed him in founding an academy at Florence for painting and sculpture; and also in executing several noble works, particularly in that year, which gained him universal applause. By the death of his patron, and the disturbances which happened at Florence, he was obliged to quit the city; but he soon returned, and imbibed that incomparable figure of David with his flag, out of a large block of marble, which is deemed his master-piece, and worthy of the hand of an antique artist. The delightful excellence of this great master was sculpture; and he was the first painter who communicated to the artists of Italy a taste for what is grand and elevated, and enabled them to abandon the dry, stiff manner of Bergino and others. Although he cannot be commended for his colouring, yet the grandeur, elevation, and sublimity of his ideas, the exquisite taste of his design, and the jutine of some of his compositions, established his fame, notwithstanding many imperfections which have been imputed to him as a painter. He wanted elegance in the contours of his figures, and purity of outline; his attitudes are not always beautiful or pleasing; and he was, as Fresnoy observes, held even to raffles, in which he often succeeded.

His acquaintance with anatomy qualified him for devising every limb and joint of the human body, and the invention, as well as the power of every muscle, with great precision; but in consequence of his anatomical skill, he was apt to give too great a strength and swell to the muscular parts. However, it is said, that Raphael himself derived improvement from observing the grand ideas of Buonaroti, though he far excelled him in elegant simplicity, grace, and nature.

The most capital performances of this extraordinary genius are “The Crucifixion,” and “The Last Judgment,” which is the ornamental of the chapel of Sixtus V. in the Vatican. This picture employed him eight years; and as every muscle and limb are distinctly and curiously marked, the figures are entirely naked. This circumstance induced Biagio of Cefenna, the pope’s master of ceremonies, to observe, that such an exhibition of naked figures was more suitable to a brothel than a chapel. But Michael Angelo revenged himself for this sarcasm, by painting the portrait of Biagio exceedingly like, representing him as a daemon, with his eyes, encircled with a large serpent, and placing him in hell. The pope frequently instructed Buonaroti to deliver his matter of ceremonies from this place of torment: but he made this excuse, that he might have been revealed if he had only been in purgatory, but as he was in hell there was no redemption for him.

A late judicious traveller, having viewed that famous composition with a most critical attention, and proportionable admiration, says, that while he stood before it his blood was chilled, and he felt as if all he saw was real; and the very sound of the painted trumpet seemed to pierce his ears.

The composition, however, though grand, is not without perceptible faults. The faces express passions of the strongest kind, and communicate them to the beholders; but the bodies are of too gross an appearance. Indeed the face of our Saviour discloses a dignity, which language cannot describe; it has an astonishing mixture of divine sweetness and severity, which could only be happily expressed by the pencil of Angelo. M. Angelo discontinued painting in the 7th year of his age; and as he died at Rome in the 90th year of his age, A. D. 1564, he was splendidly interred in that city at the expense of Cafino, duke of Tuscany; but by order of this prince, his remains were secretly conveyed to Florence, and deposited, with great funeral pomp, in a magnificent monument, enriched with three marble statues, representing Painting, Sculpture, and Architecture.

Pilkington’s Diet. Keyler’s Travels, vol. i. p 139.

Sir Joshua Reynolds, in his spirited and masterly sketch which he has given of the character of M. Angelo in his “Discourse delivered to the Students of the Royal Academy,” Dec. 10, 1779, describes him as the most excellent founder and father of modern art, of which he was not only the inventor, but which he, by the divine energy of his own mind, carried at once to its highest point of possible perfection.” “M. Angelo (says this excellent artist and judge of merit,) polished the poetical part of the art to a most eminent degree; and his mechanical excellence invigorated and embellished his mind to carry painting into the regions of poetry, and to eminate that art in its most adventurous flights. M. Angelo equally polished both the mechanical and poetical qualifications; yet of the former there were certainly great examples to be found in ancient sculpture, and particularly in the fragment known by the name of the Torso of Michael Angelo; but of that grandeur of character, air, and attitude, which he threw into all his figures, and which so well corresponds with the grandeur of his outline, there was no example; they could therefore proceed only from the most poetical and sublime imagination.”

Were I now to begin the world again,” says the ingenious president of the Royal Academy, “however unequal I feel myself to that attempt, I would trend in the steps of that great master: to kiss the hem of his garment, to catch the flight of his perfections, would be glory and distinction
enough for an ambitious man. I feel a self-congratulation in knowing myself capable of such sentiments as he intended to express. I reflect, not without vanity, that these discourses bear testimony of my admiration of that truly divine man; and I should desire that the last words which I should pronounce in this academy, and from this place, might be the name of Michael Angelo.

*ANGELONI, Francis,* in Biography, an historian and antiquary of the 17th century, illustrated the Roman history by medals, in a work published at Rome, in 1625, and entitled "Historia Anglica par les Medaillles de" John Caesar qualifie Constanin le Grand. He also wrote a "History of Term," his native country, printed in 1610, at Rome, in 1645, where he died in 1652. Now. Dict. Hill.

*ANGELOS, Los,* in Geography. See Tlascal.

*ANGELOS, Puebla de los,* or the city of angels, a town of Mexico, and new capital of the province of Los Angeles or Tlascal, supplies the place of the ancient city of Tlascal, which is now dwindled to a poor inconsiderable village, and situated not far from it. It lies in N. lat. 10° 39', and W. long. 99° 10', on the river Zicata, in a fine valley, about 25 leagues to the eastward of Mexico. In the middle is a beautiful spacious square, from whence run the principal streets in a direct line, which are crossed by others at right angles. One side is almost entirely occupied by the magnificent front of the cathedral, and the other three consist of arcades, under which are the shops of tradesmen. The city is the see of a bishop, suffragan to the archbishop of Mexico. The number of inhabitants is computed at 60,000. In the town there is a mint, and glass-house, and a manufacture of excellent salt; and the adjacent valley produces vines and all sorts of European fruits. In the neighbourhood are several kinds of mineral waters.

*ANGELOT,* an ancient English gold coin, struck at Poitiers while under submission to the English. It was thus called from the figure of an angel supporting the sceptre of the arms of England and France. There was another coin of the same denomination struck under Philip de Valois.

*Angelo* is also used, in Commerce, to denote a small, fat, rich fort of cheese, brought from Normandy.

Skinner supposes it to have been thus called, from the name of the person who first made it up in that form, and perhaps flamped it with his own name. Menage takes it to have been denominated from the resemblance it bears to the English coin called *anglet.* It is made chiefly in the Pays de Bray, whence it is also denominated *anglet de Bray.* It is commonly made in vats, either square or shaped like a heart.

*ANGELUS,* in the Church History of France, denotes a prayer to the Holy Virgin, beginning with this word, instituted by John XXII. in the year 1336, and to be recited every day, morning, noon, and night. Lewis XI. established in France the practice of repeating it at noon; and he obtained from the pope an indulgence of 300 days for all the faithful who, at three o'clock, should rehearse three times on their knees an Ave Maria for the preservation of the king and kingdom. They began, toward the close of the year 1350, to use the angelus in an evening before they put out their fires; this prayer they entitled the pardon, on account of the indulgences attached to it.

*ANGELY (L'),* in Geography, a town of Germany, in the circle of Weilphalia and bishopric of Liège, four miles south-west of Charleroy.

*ANGEN,* a small town of Lower Austria, belonging to the count of Peltzburg.

*ANGER,* Hutchedon defines anger, a propensity to occasion evil to another, arising upon an apprehension of an injury done by him; or, as archdeacon Paley defines it, anger is the pain we suffer upon the receipt of an injury or affront, with the usual effects of that pain upon ourselves.

Anger is either deliberative or instinctive; and the latter kind is rash and ungovernable, because it operates blindly without affording time for deliberation or fore thought. Bishop Butler (Sermon viii.) very justly observes, that anger is far from
from being a selfish passion, since it is naturally excited by injuries offered to others, as well as to ourselves: and was designed by the Author of Nature not only to excite us to act vigorously in defending ourselves from evil, but to interest us in the defence or rescue of the injured and helpless, and to raise us above the fear of the proud and mighty oppressor. Be we angry, and fear not," is a scripture caution; and this supposes that all anger is not sinful, because some degree of it, and, upon some occasions, is inevitable. It becomes sinful, however, when it is conceived upon flightless and inadequate provocations, and when it continues long. The cautions and precepts relating to anger evidently supposeth, that this passion is within our power; and this power consists in mollifying our minds by habits of just reflection, as to be less irritated by impositions of injury, and to be sooner pacified. Such reflections as the following, as they conduce to this purpose, may be considered as the antitheses of anger, viz., the possibility of mislaking the motives from which the conduct that offends us proceeded; how often our offences have been the effect of inadvertency, when they are conceived into indications of malice; the inducement which prompted our adversary to act as he did, and how powerless the same inducement has, at one time or other, operated upon ourselves; that he is suffering perhaps under a contrition, which he is ashamed, or wants opportunity, to confess; and how ungenerous it is to triumph by coldness or inattention to a spirit already humbled in secret; that the returns of kindness are sweet, and that there is neither honour, nor virtue, nor ufe, in refraining them—for some persons think themselves bound to cherish and keep alive their indignation, when they find it dying away of itself. We may remember that others have their passions, their prejudices, their favourite aims, their fears, their cautions, their intertexts, their sudden impulses, their varieties of apprehension, as well as we: we may recollect what hath sometimes paffed in our own minds, when we have got on the wrong side of a quarrel, and imagine the fame to be_paffing in our adversary's mind now; when we became fensitive of our mifbehaviour, what palliations we perceived in it, and expected others to perceive; how we were affected by the kindness, and felt the fuperiority of a generous reception and ready forgiveness; how perseverance revived our spirits with our vanity, and seemed to justify the conduct in ourselves, which we before blame. Add to this, the insensitivity of extravagant anger; how it renders us, whilst it lasts, the fcor and fmitl of all about us, of which it leaves us, when it ceases, fensitive and afhamed; the inconveniences and irretrievable fpoudue, in which our infahibility has sometimes betrayed us; the friendships it has loft us; the diftrajces and embarrassments in which we have been involved by it; and the fore-repetance which on one account or other it always culls us.

But the reflelion calculated above all others to allay that haughtiness of temper which is ever finding out provocations, and which renders anger fo impetuous, is that which the Gospel proposes, namely, that we ourselves are, or shortly shall be, suppliants for mercy and pardon at the judgment-seat of God. Imagine our secret sins disclosed and brought to light; imagine us thus humbled and exposed; trembling under the hand of God; calling ourselves on his compassion; crying out for mercy—imagine such a creature to talk of satisfaction and revenge; refusing to be intreated, declining to forgive; extreme to mark and to resent what is done amiss; imagine this, and you can hardly bring to yourself an inflance of more impious and unnatural arrogance. Paley's Philof. vol. ii. chap. vii. p. 261, &c.

Physicians and naturalists relate some very extraordinary effects of this passion. Burritus cured a woman of an irrecoverable tertian ague, by putting the patient into a violent fit of anger. The same passion has been excited with salutary influence in paralytic, gouty, and even dumb persons; and these last have, in some cases, recovered the use of speech. Etmorel, among other inflances of singular cures wrought by anger, mentions a person, who, being afflicted with the gout, was provoked by his physician to a great degree, and thus cured. In some cases of this passion, mildly excited, has proved mortal. Valentinian the First, Wenceslaus, Matthius Corvinus king of Hungary, and others, have fallen sacrifices to it. Inflances might also be mentioned in which it has produced the epilepsy, jaundice, cholera morbus, diarrhoea, &c.

Anger, indeed, is of such a nature, that it quickly throws the whole nervous system into preternatural convulsions by a violent stiure of the nervous and muscular parts; and surprizingly augments not only the fyllole of the heart, and of its contiguous vessels, but also the tone of the fibrous parts in the whole body. It is also certain, that this passion, by the pspmodic stiure it produces in the parts, exerts its power principally on the stomach and intestines, which are highly nervous and membranous parts; whence the symptoms are more dangerous, in proportion to the greater content of the stomach and intestines with the other nervous parts, and almost with the whole body.

The unhappy influence of anger likewise, on the biliary and hepatic ducts, is very surprizing; since by an intense contrition of thefe, the liver is not only rendered feirrhous, but stones also are often generated in the gall-bladder, and biliary ducts; thofe accidents have fearely any other origin than an obstruction of the free motion and efflux of the bile, by means of this violent stiure. From fuch a stiure of thofe ducts likewise proceeds the jaundice, which in procfs of time lays a foundation for calculous concretions in the gall-bladder. Lastly, by increasing the motion of the fluid, or the impafs of the fibrous parts by means of anger, a larger quantity of blood is propelled with an impetus, to certain parts; whence it happens, that they are too much dilated, and the orifices of the veins distributed there, opened. It is evident from experience that anger has a great tendency to excite enormous hemorrhages, either from the nofe, the aperture of the pulmonary artery, the veins of the arms; or in women from the uterus; especially in those previously accustomed and disposed to fuch evacuations.

For the influence of this passion on the perspiration and urine of human bodies, see Perspiration, &c.

Anger, in Geography, a town of Germany, in the duky of Sibria, 12 miles north-north-call of Graz.

Anger is also a town of Germany, in the archduchy of Aulma, eight miles south of St. Polen.

ANGERAP, a river of Prufia, which runs into the Pregel, near Georgenburg.

ANGERBACH, a modern, well-built, and flourishing town of Prufia, in a government of the fame name. It is defended by a strong castle built in 1355 upon the bank of a lake, which is the source of the river Angerap. This lake, seven German miles long, and one and a half broad, is of great service to the town, and abounds with eels. In 1725 an arch-prefbytery was founded here, which has 12 churches under its jurisdiction. The belt Prussian manna is produced in the environs of Angerburg.

ANGERMANLAND, or ANGERMANNIA, a province of Sweden, bounded on the north by Bothnia and Lapland,
on the eall by the gulf of Bothnia, on the south by Medelpad, and in the west by Jamtland and Hagerdal. Its extent is about 10,000 miles in length, and 16 in breadth. It abounds with forests and mountains; amongst the latter of which the highest mountain called Skellefte is the most remarkable. The soil, however, is fruitful, and in these parts produces excellent corn. The dadon on the south side of Angermanland river yields rice, pate, flax, and good hay; and the numerous lakes afford good pastures for cattle. There are also several inland waters and Lakes abounding with fish. This province maintains fishing for the royal navy, and contains a kind of inland navigation, and two railways. It is one of the divisions of the episcopal diocese of the archbishop, which the 1st of July, and divided into two pro-

divisions. The same extends influence over the provinces of Angermanland, Medelpad, Jamtland, Hagerdal, and the whole government of the town Bothnia, Krambepark excepted, which belongs to the diocese of Abo.

Angermund, a town of the duchy of Courland, in the district of Pfits, 10 miles north-east of Pfits.

Angermund, also a town and prefecture of Berg, in the district of Pfits, 10 miles north-east of Pfits.

Angermund, a town of Germany, in the circle of Angermund, in the neighborhood of the town of Berg, 10 miles north-east of Berlin. It is a picturesque and interesting place, and belongs to the diocese of Abo.

Angermund, a town, with a church and iron-works, in the prefecture of Tuckum, and duchy of Courland.

Angelo, a town of Italy, in the kingdom of Naples, and Principe della; 10 miles west-north-west from S.

Angeron, in Mythology, a pagan deity of the Romans, similar to the Harpocrates of the Egyptians, and the Elegy of the Greeks, represented by them for relief under the name of an aqua or aqua. This deity is denominated by the Greeks as "the Goddess of Science, and Calemce of Mind," because she has divided all mankind and melancholy. She is represented with her mouth closed, and a finger applied to it, to denote silence, and the suppression of complaints. Her image was set up in the temple of the goddess Volupia, and was not placed at a metal altar, consisting of that patience under affliction and incognito with secret and sweet pleasures.

Angeronia, in Mythology, a colossus held by the Romans, the last of December, in honour of Angeronia, or Angeronia, the goddes of patience and silence.

Tuctus and Samboduc, quoted by Macrobius, Saturn, i. 1, c. 10, to derive the name from aqua, signifying and supposed the goddess to have been thus denominated, because she extinguished over that element. Others suppose it formed from acqua, grey, pain, to intimate that the gaw, relief to those afflicted thence. Others derive it from aqua, in pro, in the sense of being reputed the goddess of silence, &c.

Angers, in Geography, a small town of Welf phalia, in the duchy of Berg, situated near the fall of the Angers into the Rhine, nine miles north from Dusseldorf. The Angers, ancienlly Julia Angers and Angaram, a city of France, and capital of the department of the Mayne and Loire, situate on the Mayne, and divided by it into two parts, communicating with each other by two bridges. Before the revolution it was the capital of Anjou and the seat of a bishop, suffragan to the archbishop of Tours: its university was founded by St. Lewis in 1245, by whom the cathedral was built; and its academy of the letters in 1685. The first walls of this city were built by John, king of England, who was count of Anjou in 1214, but destroyed by Louis VIII., and rebuilt by his son, in their present form, in 1257; the city has its 16 parishes, and several religious houses; the cathedral is venerable for its age, and beautiful with regard to its structure; the roofs are covered with the black slate procured from the quarries of Anjou, and hence Angers is called "The Black City." The manufacture of Angers before the revolution conducted of candles, legs, and mixed stuff, and it carried on a considerable trade in other commodities. Its population is estimated at 300,000 inhabitants. It is divided into 16 leagues from Tours, 18 north-east from Nantes, and 67 south from Paris. It is a large island of 15 leagues, and 47 leagues in circumference. It is not inhabited, and is separated from it by the lake called Lago Maggiore. N. lat. 45° 36' 50". E. long. 5° 16'.

Angiglossi, from vivax, vivacious, and vivi, living, denote those who speak with difficulty, hesitancy, or even stammering.

Angilism, in our Old Writers, denotes a simple word, that is, the simple value of the man, or other thing. The word is compounded of the Saxon, on, one, and god, payment, price, or compensation.

In this sense, angilism stands contradistinguished from	inflammation, a double confinement: triligium, a triple confinement.

Angina, in Medicine, an inflammation about the muscles of the lungs or pharynx, attended with an acute fever, difficulty of swallowing, and danger of suffocation. The word is derived immediately from the Latin angina, I, form of a, to be, suffico, frangito. See Cynanche.

Angina lay, in Botany, a name used by some of the later Greek writers, to express what the more ancient writers of this nation called angina, and the Latin angina; this was the cafea or dodder growing on the flax, as that on the thyme was called epithymum. It was called angina lay, quinque of flavis, from its blooming that plant.

Angina petzaria, in Medicine, a name given to a disease, dangerous and not extremely rare, first described by Dr. W. Heberden, and so called from the seat of the disorder, and the sense of strangling and anxiety with which it is attended. The doctor's account of it is in the second volume of the London Medec. Trans. p. 56, &c. See also Medec. and Phil. Comment. vol. ii. p. 95. The patient, while walking, especially if soon after eating, is affected with a painful sensation in his breast; at first, it is removed by his standing still, but afterwards it does not go off so suddenly: it comes on.
on in bed, obliges the patient to get up, and continues for an hour and more; sometimes, though rarely, it attacks the patient standing or sitting still. It is brought on by trivial accidents, coughing, &c. or any flight disturbance. In some it is worse in Winter, in others in Summer. The knife, sometimes at least, is not disturbed. People affected with it often die suddenly, but some continue subjeft to it for upwards of 20 years. The patient commonly refers the fact of his complaint to the ilium, or to a line running across the middle of the ilium; and a pain in the middle of the left arm sometimes accompanies it.

The caufe of this distressing malady was not understood till lately, it being often supposed a spasmodic affection, or a cares of the ilium; but it is now believed to be an affection of the coronary arteries which supply the muscular substance of the heart with blood. This change of structure renders the heart unequal to the task of circulating the usual quantity of blood thrown upon it by violent exertions or palfions of the mind, and hence it is that there are the exciting cauæ of the diffice, in the early stages of the disease.

The prognosis must generally be unfavourable; but several means may be employed to diminish the sufferings of the patient, or to postpone the fatal issue of the disease. These are temperance in eating and drinking, and abstinence from violent exercise and paffions. As angina pectoris commonly attacks persons disposed to obesity and phthisis, these states should be avoided by a suitabe regimen, and occasional bleeding and purging. The circulation should also be kept as equal as possible in every part of the system, by warm clothing, and avoiding the cauæ of local congestion. Wine, or other cordials, taken at bed-time, prevent or weaken night-fits, but opium is the most effectual relief; ten, fifteen, or twenty drops of the Thoebac tincture, taken at bed-time, may be safely continued as long as requisite.

This disease has been accurately described, and suitable precautions or remedies proposed, by Dr. Fothergill, Med. Off. and Inq. vol. v. p. 253, 252; and Dr. C. H. Parry, of Bath, has published an Inquiry into the Symptoms and Cauæs of the Syncope Angina, commonly called Angina pectoris. (1807). This work contains every thing known on the subject.

ANGIOLELLO, JOHANN MARIA, in Biography, an historian, of the 16th century, was a native of Venice, and followed the young Junt Mahomet, to whom he was a slave, in 1533, into Persia, in the dreadful war carried on by Mahomet II. at the head of nearly 200,000 men. As an eye-witness of the events of this war, he wrote "A History of Mahomet II. in the Italian and Turkish languages, dedicated to the sultan, freely written, and yet well received and liberally rewarded. A work, "Of the Life and Actions of the King of Persia," was printed at Venice, under the name of this writer in 1553; and he also wrote, in Italian, "A Relation of the Life and Actions of Ullan Caffan." Gen. Dict.

ANGIOPERIS, in Botany. See Onoclea.

ANGIOSPERMIA, a term used by Linnaeus, to express the second order of the dyedynia plants, which have their seeds not lodged naked within the cup as in the gymnoferma, but included in a capsule, and adhering to a receptacle in the middle of a pericarp. The class of dyedynia contains the labiatad and perforated plants. The angiospermae are the perforated, the others the labiata kind. In this order many of the corollas are perforate, or labiata, with the lips closed; some, however, have bell-shaped, wheel-shaped, or triangular corollas.

To have seeds included in a pericarp is common to all, and hence the name of the order angiosperma. In most of the genera the calyxes are quinqufoli at; in some, however, they are bilab; one trifid, in many quadrifid, and in two multifid. This order, in Gmelin's edition of Linnaeus, contains 87 genera. See Didynamia.

ANGITAS, in Ancient Geography, a river of Thrace, which runs from the north-east, and discharges itself into the Strymon above Amphipolis.

ANGITILUS, or Nemus, a forest of Italy, situated near the Lucus Fucinus. Pliny calls the inhabitants Lucenci. Angitilla was the father of Medea and Crec, and was regarded as a goddes, because she preferred antidotes against poison and the bites of serpents. The name was probably derived from anguis, a serpent, a species of animals which abounded in this place. This forest is mentioned by Virgil (J. a. viii. 659), and by Silius Italiens (lib. viii. v. 468), and was situated in the country of the Marthi.

ANGITULA, a small river of Italy in Bruttium, which discharges itself into the Thermaic gulf, near Nepiata.

ANGLE, Angulus, in Geometry, the aperture or mutual inclination of two lines, meeting in a point.

Such is the angle BAC (Plate I. Geometry, fig. 15.) formed by the lines AB and AC, meeting in the point A. — The lines AB, and AC, are called the legs or the sides of the angle; and the point of intersection, the vertex or angular point.

Angles are sometimes denoted by a single letter affixed to the vertex, or angular point, as A; and sometimes, when several angles have the same vertex, by three letters, that of the vertex being in the middle, as BAC.

The measure of an angle, by which its quantity or magnitude is expressed, is an arc, DE, described from its vertex A, with any radius at pleasure between its legs, AC and AB; and the measure of the angle depends merely on the inclination of the lines by which it is formed, and not on the length of the radius, or the extent of the arc that bounds it.

Hence angles are distinguished by the ratio of the arcs which they thus subtend to the circumference of the whole circle. — And thus an angle is said to be of so many degrees, as are the degrees of the arc DE, by which it is measured.

Hence, also, since the arcs AB and AC, &c. (fig. 16.) have the same ratio to their respective circumferences; and the circumferences contain each the same number of degrees; the arcs AB and AC, &c. are equal; and therefore the angles themselves must be likewise equal. Hence, again, as the quantity of an angle is estimated by the ratio of the arc subtended by it to the periphery, it is of no importance what radius that arc is described with; but the measures of equal angles are always either equal arcs, or similar ones; and contrariwise.

It follows, therefore, that the quantity of the angles remains fill the same, though the legs be either produced or diminished. — And thus in similar triangles, and in similar figures, the homologous or corresponding angles are also equal.

The taking or measuring of angles is an operation of great use and extent in surveying, navigation, geography, astronomy, &c. The instruments chiefly used for this purpose are quadrants, sextants, octants, theodolites, circumferencetors, &c.

Mr. Hadley has invented a new and excellent instrument for taking angles, useful where the motion of the object, or any circumstance causing unsteadiness in the common instruments, renders the observations difficult or uncertain. Phil. Trans. N° 420, and N° 425. Mr. Dollond has likewise contrived
ANGLE.

To measure the quantity of an angle. - 1. On paper. Apply the centre of a protractor to the vertex of the angle C (Plate I. Surveying, fig. 1.), so that the radius CG may coincide with one of the legs; the degree shown in the arc, by the other leg of the angle, will give the angle required. To do the same with a line of chords, see Sector. See Geometry.

2. On the ground. — Place a surveying instrument, e. g., a quadrant, a semi-circle (fig. 2.), in such a manner that a radius thereof CG may be over one leg of the angle, and the centre over the vertex. The first is obtained by looking through the sights fixed at G, towards a mark fixed at the end of the leg; and the latter, by letting fall a plummet from the centre of the instrument. Then, the moveable index HI being turned this way and that, till through its sights you discover a mark placed at the extreme of the other leg of the angle; the degree it cuts in the limb of the instrument gives the quantity of the angle.

To take the angle with a quadrant, theodolite, plain table, sector, compass, &c. See several articles. To plot or lay down any given angle, i.e. the quantity of the angle being given, to describe it on paper. See Fluting and Protractor.

To bisect a given angle, as HIK (Plate I. Geometry, fig. 17.), from the centre I, with any radius at pleasure, describe an arc LM. From L and M, with an aperture greater than half LM, strike two arcs mutually intersecting each other in N. Then drawing the right line IN, we have HIN = HIK.

To trisect an angle, see Trisection.

Pappus, in his Mathematical Collections, lib. iv. treatises of angular sections, and more particularly of trisections.

Angles are of various kinds and denominations.

With regard to the form of their legs, they are divided into rectilinear, curvilinear, and mixed.

An angle, rectilinear, or right lined, is that whose legs are both right lines: as BAC (Plate I. Geometry, fig. 15.).

An angle, curvilinear, is that whose legs are both of them curves.

An angle, mixt, or mixtilinear, is that, one of whose sides is a right line, and the other a curve.

With regard to their magnitude, angles are again divided into right, acute, obtuse, and oblique.

An angle, right, is that formed by a line falling perpendicularly on another; or that which subtends an arc of 90 degrees. Such is the angle KLM (fig. 18.).

The measure of a right angle, therefore, is a quadrant of a circle; and consequently all right angles are equal to each other.

An angle, acute, is that which is less than a right angle, or than 90° — as AEC (fig. 19.).

An angle, obtuse, is that greater than a right angle, or whose measure exceeds 90° — as AED.

An angle, oblique, is a common name both for acute and obtuse angles.

With regard to their situation in respect of each other, angles are divided into contiguous, adjacent, vertical, alternate and opposite.

Angles, contiguous, are such as have the same vertex, and one leg common to both. — Such are FGH and HGI (fig. 20.).

Angles, adjacent, is that made by producing one of the legs of another angle. Such is the angle AEC (fig. 19.), made by producing a leg, ED, of the angle AED, to C. Two adjacent angles, x and y, or any other number of angles made at the same point E, over the same right line CD, are together equal to two right ones; and consequently to 180°. And hence one of two adjacent angles being given, the other is likewise given; as being the supplement of the former to 180°.

Hence also, to measure an inaccessible angle in a field, take an adjacent accessible angle, and subtract from 180°, the remainder is the angle required.

Again, all the angles x, y, z, E, &c. made round a given point E, are equal to four right ones; and therefore all make 360°.

Angles, vertical, or opposite, are those whose legs are continuations of each other. Such are the angles a and x, (fig. 16.).

If a right line AB, cut another, CD, in E, the vertical angles, x and y, as also y and E, are equal. And hence, if it be required to measure, in a field, or any other place, an inaccessible angle, x; and the other vertical angle, y, be accessible; this latter may be taken in lieu of the former.

Angles, alternate. See & Alternate.

Angles, external, are the angles of any right-lined figure made without it, by producing all the sides.

All the external angles of any figure, taken together, are equal to four right angles; and the external angle of a triangle is equal to both the internal and opposite ones.

Angles, internal, are the angles made by the sides of any right-lined figure within the said figure.

The sum of all the internal angles of any right-lined figure is equal to twice as many right angles as the figure hath sides, excepting four. This is easily demonstrated from Euclid, prop. 32. lib. 1.

The external angle of a trapezium inscribed in a circle is equal to the internal opposite one; and the two internal opposite angles are equal to two right ones.

Angles, homologous, or like, are such angles in two figures, as retain the same order from the first, in both figures.

Angle at the periphery, is an angle whose vertex and legs do all terminate in the periphery of a circle. Such is the angle EFD (Plate I. Geometry, fig. 21.)

Angle in the segment, is the same with that at the periphery.

It is demonstrated by Euclid, that all the angles in the same segment are equal to one another; that is, any angle EHD, is equal to any angle EFD in the same segment EFD.

The angle at the periphery, or in the segment, is comprehended between two chords EF and FD, and stands on the arc ED, and is measured by half that arc.

The measure of an angle without the periphery X (fig. 22.) is the difference between half the concave arc LM whereon it stands, and half the convex arc NO intercepted between its legs.

Angle in a semicircle, is an angle in a segment of a circle, whose base is the diameter of the circle.

It is demonstrated by Euclid, that the angle in a semicircle is a right one; in a segment greater than a semicircle, it is less than a right one; and in a segment less than a semicircle, it is greater than a right one.

Since an angle in a semicircle stands on a semicircle, its measure is a quadrant of a circle; and therefore is a right angle.

Angle of a semicircle, is the angle which the diameter
of a circle makes with the circumference. The chief property of this angle is, that it is less than a right angle, and greater than any acute right-lined angle.

**Angle at the centre**, is an angle whose vertex is in the centre of a circle, and its legs terminated in the periphery thereof. Such is the angle C.A.B (fig. 21).

The angle at the centre is comprehended between two radii, and its measure is the arc BC.

Euclid demonstrates, that the angle at the centre BAC is double of the angle BDC, standing on the same arc BC. And hence, half of the arc BC is the measure of the angle at the periphery.

Hence, also, two or more angles III.1, and HMI (fig. 23.) standing on the same, or equal arcs, are always equal. All angles at the centre are proportional to the arcs upon which they stand, and so are likewise all angles at the circumference.

**Angle without the centre**, HKI, is that whose vertex K is not in the centre, but its legs HK and IK are terminated in the periphery.

The measure of an angle without the centre is half the sum of the arcs HI and LM, whereon it and its vertical K stand when it is within the circle, or half the difference when it is without.

**Angle of contact**, is that made by the arc of a circle, or of any curve, and a tangent in the point of contact. Such is the angle IHK, (fig. 24).

The angle of contact, in a circle, is proved by Euclid to be less than any right-lined angle; but from hence it does not follow, that the angle of contact is of no quantity, as Poletarius, Wallis, and some others, have imagined. V. Wall. Algeb. p. 71, &c. Clavius, on the other hand, rightly maintained, that it is not absolutely nothing, but that it is of no magnitude compared with a right-lined angle, being a quantity of a very different nature: such as a line with respect to a surface, or a surface with respect to a solid, &c. And since this time it has been proved by Sir Isaac Newton, and others, that angles of contact may be compared with each other, though not with right-lined angles, and that the proportions which they bear to each other may be asigned. Thus, the circular angles of contact IHK, IHL, are to each other in the reciprocal subduplicate ratio of the diameters HM, HN; and the circular angle of contact may be divided by describing intermediate circles into any number of parts, and in any proportion. And if, instead of circles, the curves be parabolas, and the point of contact H the common vertex of their axes, the angles of contact would in this case be reciprocally in the subduplicate ratio of their parameters. But elliptical and hyperbolic angles of contact would be reciprocally in the subduplicate of the ratio, compounded of the ratios of the parameters and the transverse axes. Moreover, if TOQ (fig. 25.) be a common parabola to the axis OP and tangent VOW, whose equation is \(x^2 = ay\), \(x\) being the absciss OP, and \(y\) the ordinate PQ, and the parameter being \(1\); and if OR, OS, &c. be other parabolas to the same axis, tangent and parameter, their ordinates \(y\) being PR, or PS, &c. and their equations \(x^2 = ay\), \(x^2 = y\), \(x = y\), &c.; then the series of the angles of contact would be in succession infinitely greater than each other; that is, the angle of contact WOQ would be infinitely greater than WOR, and this again infinitely greater than WOS, and so on infinitely. Besides, between the angles of contact of any two of this kind, other angles of contact may be found ad infinitum, which shall infinitely exceed each other, and yet the greatest of them be infinitely less than the smallest right-lined angle. Thus also \(x = y\), \(x^2 = y\), \(x^2 = y^2\), &c. denote a series of curves, of which every suc-

ceeding one makes an angle with its tangent infinitely greater than the preceding one; and the half of these, \(\text{viz.}\) that whole equation is \(x^2 = ay\), or the semicircular parabola, is infinitely greater than any circular angle of contact.

**Angle of a segment** is that made by a chord with a tangent, in the point of contact. Such are HIK, (fig. 26.) the angle of the lesser segment IH, and HIL, the angle of the greater segment IH. And the measure of each of these angles is half the alternate or suplemental segment, or it is equal to the angle in it; that is, the angle HIK = IH, and HIL = IH.

**Angles, for the effects, properties, relations, &c. of**, when combined into triangles, quadrangles and polygonal figures, see Triangle, Quadrangle, Square, Parallelogram, Polygon, Figure, &c.

Angles are again divided into planes, spherical, and solid. Angles, plane, are those above-mentioned; which are defined by the inclination of two lines in a plane, meeting in a point.

**Angle, spherical**, is an angle formed on the surface of a sphere by the intersection of two great circles, or the inclination of the planes of two great circles of the sphere.

For the properties of spherical angles, see Spherical Angle.

**Angle, solid**, is the mutual inclination of more than two planes, or plane angles, meeting in a point, and not contained in the same plane. For the measure, properties, &c. of solid angles, see Solid Angle.

We also meet with other kinds usual sorts of angles among some geometers; as

**Angle, borned, angular cornutus, that made by a right line, whether a tangent or secant, with the periphery of a circle.**

**Angle, lunular, angular lunularis, is that formed by the intersection of two curve lines; the one concave, and the other convex.**

**Angle, ellipsoid, angular ellipsoides, is the inner angle made by two spherical convex lines intersecting each other.** See Cissoid.

**Angle, spheroid, angular spheroides, is that which has the form of a sistrum.**

**Angle, peleoid, angular peleoides, is that in figure of a hatchet.** See Peleoides.

**Angle, in Trigonometry.** See Triangle, and Trigonometry.

For the sizes, tangents, and secants of angles, see Sine, Tangent, and Secant.

**Angle, in Geography, a town of France, in the department of Vendee, and chief place of a canton, in the district of Sables d'Olonne, ten miles west-south-west from Laon.**

**Angle is also a town of France, in the department of Vienne, and chief place of a canton, in the district of Mont Morillon, on the Creuse, 25 miles east from Poitiers.**

**Angle, in Mechanics.** Angle of direction, is that comprehended between the lines of direction of two confining forces. See Direction.

**Angle of elevation, is that comprehended between the line of direction of a projectile, and any plane upon which the projection is made, whether horizontal or oblique. Such is the angle RAB (Plate 1. Mechanics, fig. 3.) which is comprehended between the line of direction of the projectile AR, and the horizontal line AB.**

**Angle of incidence, is that made by the line of direction of an impinging body, in the point of contact. Such is the angle DFA (fig. 4.)**

**Angle of reflection, is that made by the line of direction of
of the reflected body, at the point of contact from which it returns. See the Angle.

Angle of Incidence. In Catoptrics, is the angle included between two rays drawn from the two extreme parts of an object to the center of the pupil. — Such is the angle ABC (Plate 1, Optics, fig.) comprehended between the rays AB, and AC. This apparent magnitude of objects is greater or less, according to the angle, which appears to them. See Apparent Magnification.

Objects seen under the same, or an equal angle, always appear equal.

The least visible angle, or the least angle under which a body can be seen, according to Dr. Hooke; is one minute; though Dr. Jurin found, that at the time of his debate with Huyghens, on the subject, the latter could probably discover a single star made to subtend an angle as 20". But bodies are visible under smaller angles, as the sun's rays height of hillous. Dr. Jurin fixes the grounds of this controversy, and discusses the quantities at large in his Essay upon distinct and indistinct Vision, published in Smith's Optics, p. 118, &c.

Angle of the interval of two places, is the angle subtended by two lines drawn from the eye to those places.

Angle of incidence, in Catoptrics, is the lesser angle, made by an incident ray of light, with the plane of a speculum; or, if the speculum be concave or convex, with a tangent in the point of incidence. Such is the angle ABC (fig. 5.) Or, as some define it, it is the angle which a ray of light makes with a perpendicular to that point of the surface of any medium on which it falls.

Every incident ray, AB, makes two angles, the one acute, ABD, the other obtuse, ABE; though sometimes both right. The lesser of such angles is the angle of incidence. See Incidence.

Angle of incidence, in Dioptrics, is the angle AHI (fig. 4), made by an incident ray, AB, with a lens, or other refracting surface, HI.

Angle of inclination, is the angle ABD, contained between an incident ray, AB, and the axis of incidence, DB. See Angle, &c.

Angle of reflection, in Catoptrics. See Reflection.

Angle, reflected. 

Angle of refraction, in Dioptrics. See Refraction.

Angle, refracted. 


Angle of elongation, or Angle at the earth. See Elongation.

Angle, parallactic. See Parallactic angle and Parallax.

Angle at the sun, is the angle under which the diameter of a planet from the ecliptic is seen from the sun.

Angle of the Earth. See Nonagesimal.

Angle of obliquity, of the ecliptic, or the angle of inclination of the axis of the earth, to the axis of the ecliptic, is now nearly 23° 28'. By means of this inclination, such inhabitants of the earth as live beyond 45° of latitude, have more of the sun's heat, taking all the year round; and those who live within 45° have less of his heat, than if the earth always moved in the equinoctial. See Obliquity, and Ecliptic.

Angle of longitude, is the angle which the circle of a star's right ascension makes with the meridian, at the pole of the ecliptic.

Angle of right ascension, is the angle which the circle of

A N G L E.

The apparent magnitude of objects is greater or less, according to the angle, which appears to them. See Apparent Magnification.

A N G L E.

The apparent magnitude of objects is greater or less, according to the angle, which appears to them. See Apparent Magnification.

A N G L E.

The apparent magnitude of objects is greater or less, according to the angle, which appears to them. See Apparent Magnification.

A N G L E.

The apparent magnitude of objects is greater or less, according to the angle, which appears to them. See Apparent Magnification.
Angles, re-entering, or re-entrant, is that whose vertex is
turned inwards, towards the place.

Angles, oblong, or oblongi, is that which advances its
point toward the field.

Angles of the tenaille, or the outward flanking angle, called
also the angle of the mast, or the dead angle, is made by the
two lines oblong in the faces of the two billows, extended
till they meet in an angle towards the curtin. This always
turns its point in towards the work.

Angles, dead, is a re-entering angle, which is not flanked
or defended.

Angles of a wall, in Architecture, is the point or corner
where the two sides or faces of a wall meet.

Angle Bar, in Carpentry, is that which is perpendicular
to the horizon, in the angle formed by any two faces of a
bow-window, whose plan is a polygon.

Angle Bracket of a cove or cornice, is that which stands
in a perpendicular plane, passing through the diagonal of
the plan, ranging in every right line horizontally; directed
along the edges of the common ribs that are fixed on either
side of it.

Angle Rib of a groin, is that which stands in the
diagonal perpendicular plane, passing through the diagonal of
the plan, and ranging in right lines in every horizontal direction
with the common ribs that are fixed on either side of it. These
two lines are the same in principle, their difference being only
in the application; for their description, see a Groin.

Angles, or Angles, in Geography, a small district
of the duchy of Slefwick, in Denmark, from 16 to 20
miles in length, and about as much in breadth, situated
between Flensburg and Slefwick. See Angles.

Angles, a fisherman, or other person who practices
angling.

Angles are to be distinguished from poachers. Some
make the same difference between them, that is between
the fair trader and smuggler. Accordingly the legislature
has made the latter penal, but had no restraints on the former.
Angles can do no prejudice to the fish of a river. Anglers
fish for their recreation, not for lucre; whereas poachers
make it their livelihood.

Angles, in Ichthyology, the English name of the bata-
choes of Aristole and Oppian, and the genus plecostomus
of Pliny and Ovid: a species of Lophius.

Angles, Padre Camillo di Cremona, in Biology,
author of a musical tract entitled, "Regole di
Contrapunto," published at Mant in 1622.

Angles of a battalion, in the Military Art, are those
soldiers that are placed where the ranks and files terminate.
See Battalion.

The angles of a battalion are said to be blunted, when the
soldiers at the four corners are removed, so that the square
battalion becomes octagonal; this was an evolution very
common among the ancients, though now disused.

Angles, in Anatomy, are understood of the canthi, or
or the corners of the eye, where the upper eye-lid meets with
the under.

That next the nose is called the great or internal, and
that towards the temples, the lift or external angle, or
canthus.

Angles, in Astrology, denote certain houses of a figure,
or scheme of the heavens. Thus the horizon of the flat
horizon is termed the angle of the sky.

Angles, Instruments for measuring horizontal, in Astronomy.
See Horizontal.

Angles, in Geography, a town of France, in the department
of the Havain, and chief place of a canton, in the
district of St. Pois, three leagues well-north-west from
St. Pois.

Vol. II.

Angles, in Geography, are said to have been a tribe of the
Suvi, who, in the time of Caesar (Bell. Gall. li. v.), were
the greatest and bravest of all the German nations. This
tribe, after various adventures and migrations, settled in that
part of the Cimbic Chersonese, which now forms the
duchy of Slefwick, where some vestiges of their name still
remain in the district of Angles. The most probable ety-
moblogy of the name deduces it from the Saxons "Angle
or Angil," signifying "a fish-hook;" and indicating that the
Angles were much addicted to piracy, and were so called by the
neighbouring nations, because, like fish-hooks, they
captured all that was in the sea. From these people the
English are said to have originated; for when they were
invaded by the British ambassador to succour their
countrymen against the Scots and Picts, they embarked,
with greater spirit and in greater numbers than any of the
other German nations; and having expelled the Picts,
and made themselves masters of the country, they had
the honour of giving their name to England and its
inhabitants. The reason, it is said, why the name of Angles
was preferred to that of Saxons seems to have been, because
it was more distinctive and more honourable: that being
at that time a large nation of Saxons on the continent, who
were in disrepute on account of their manners, and the defen-
s which they had suffered from Charlemagne. It may
be added, that the Angles constituted the greatest part of
Egbert's subjects: all the northern, eastern, and midland
counties, being inhabited by them. Egbert published an
epitaph, dated at Winchfeather in the year 827, abolishing
the distinctions of Saxons, Jutes, and English, commanding all
his subjects for the future to be called by the latter name
only. Rupin's Hist. vol. i. p. 89.

Angles, or Anglesey, the Mona of Tacitus, in
Geography, the English name for Môn, an island on the nor-
thern extremity of Wales, from which it is separated only
by a narrow channel, called the Menai. It is about 20 miles
in length, by 17 miles in breadth; or as others say, 25 long,
and 18 broad; and is one of the six counties of North
Wales; which is divided into three hundreds: that is to say,
Aber Fraw, with its townships of Llviron and Malltrth;
Rhosyr, with its townships of Tindaethwy and Menai;
and Cemae, with its townships of Twrcelyn and Talybont.
According to a late estimate Anglesea contains about 200,000
acres of land, and 20,000 inhabitants; and is divided into seven
hundreds, 74 parishes, and four market towns; situated
in the diocese of Bangor. The chief town is Beaumaris.
The air is in general good, except when the thick fogs arise
from the Irish seas; but in autumn it is cold and arid.

The soil, which, on the first aspect, appears rocky
and mountainous, is nevertheless fertile, and produces a
number of cattle, and great quantities of corn, sent annually
to England. However much of the land lies plowed and
full of turf bogs, or pointed rocks; and yet there are some
rich farms in the interior and along the coast, particularly
that which is opposite to Caernarvonshire. The general
face of the country is low, flat, and unpleasing.

This island, which is known to the Welsh only by the
name of Môn, obtained the appellation of Anglesey, among
the English, from the following circumstance: in the year
829, Egbert invaded North Wales; and after ravaging sev-
eral districts, he passed over into Mona; defeated the
Welsh, in a bloody battle near Beaumaris; and, in conse-
quence of his victory, he gave possession of the whole island.
He was able to maintain himself there only for a short time;
being driven out by Mervyn, king of North Wales; never-
thelass, the English ever after continued to call the place
Anglesea, or the island of the Angles.

According to a curious historical document, contained in
the
the Britih Triads, this isle once formed a part of the main land. The passage is to the following purport: "The three original islands adjoining to Britain were Orkney, Man, and Wight; and afterwards the sea broke the land, so that Man became an island; and in like manner Orkney was broken; so that there were formed a multitude of islands; and other places on the coasts of Scotland and Wales were broken by the sea, and became islands."

The book entitled *Mona Antiqua* was written by Rowlands, to prove that Anglesea was the metropolis of Druidism. An hypothesis formed from the recital of the delusion of the Druids there by St. Bonosius Paulinus, or probably suggested by a partiality for his native place, and certainly without duly weighing its title to that preeminence, for if he had done so, he must have discovered such a position to be defective of any solid foundation.

Nothing more ought to be inferred from the account of the Druids having been found by the Romans in Anglesea, than that they were taken in their retreat; for they always avoided the fast of war, agreeable to their principles; but here they did not expect the appearance of the enemy so suddenly, and very likely they had not the means time enough of retreat farther.

In the next place, that island does not abound with any monuments or remains, in sufficient numbers to induce a belief of its having been the permanent centre of Druidism; and in truth there is not perhaps a country in all Wales, but which abounds more with such vylesges than Anglesea.

It is also to be naturally supposed that the principal place of meetings would have been fixed upon in the most convenient situation for the different flats of Britain and of Gaul to attend; and free from the obstructions of large rivers, and other obstacles; whereas the isle of Anglesea was peculiarly the reverse of all this; and we must, therefore, seek elsewhere for the alma mater of the Bards, Druids, and Ortes.

The open grounds of Wiltshire then necessarily draw our attention; there we find Avebury, the grand national circle of the Britons; and there too it is said to be by the bardic Triads; and compared with this, no similar work in the country bears any comparison in grandeur and extent of design.

The glory of Mona must, therefore, be confided to its proper sphere; for it never had a more extended orbit than it has now; in druidical times it had its small provincial circles, as in the present day it has its parish churches.

The great curiosity which Anglesea can boast, and the chief source of its wealth, is the Paris mountain, the name of which is most probably derived from the old Welsh word "Ffuras," signifying "brass," which might easily be corrupted into Paris. The copper-mines in this part of the island are supposed to have been known and worked by the Romans; a pool on the top of the mountain having been distinguished, long before the present works were formed, by the name of the Mine-pool. The mine of this mountain is considerably more than a mile in circumference, and on an average 1500 men are constantly employed in it. It has the singular advantage of being worked in the open air; a circumstance which expedites the labour, and secures the health of those that are employed.

Abundance of vitriolic water is found in these works, which is so strong as infamintaneously to turn whatever steel or iron is dipped into it, to the colour and appearance of copper. This water is exposed to the fun in large open troughs, and the copper quality is extracted from it by a curious process. Great quantities of sulphur are also produced, and its sublimation is carried on in various spots upon the mountain, till at last the whole is collected into some large boiling-houses, and formed into rolls of brimstone.

The copper ore is then carried down to some smelting-houses, constructed in the valley below near the sea-side, where every remaining operation is performed with wonderful art and affinity. Lead, silver, in silver, is also found in the same mountain; and in the north-eastern part of the island there is a quarry of green marble intermixed with abelites.

Anglesea sends two members to the imperial parliament: one for the county, and one for Beaumaris.

ANGLESQUEVILLE, a town of France, in the department of the Lower Seine, and chief place of a canton, in the dioc. of Dieppe, 15 miles north from Rouen.

ANGILIA, East, in Higlors, one of the kingdoms of the Heptarchy, bounded by the Angles that landed on the easterly coasts of Britain, under 13 chiefs, the survivor of whom, Offa, in 571, assumed the title of king of the East-Angils. This kingdom was bounded on the north by the Humber and the German Ocean, on the south by the sea ocean, on the south by the kingdom of Eastfris, and on the west by Mercia. Its greatest length was 80, and its greatest breadth 75 miles. It contained the two counties of Norfolk and Suffolk, with part of Cambridgeshire. The chief towns were Norwich, Thetford, Ely, and Cambridge. Earpold, the fourth monarch of this kingdom, was converted to Christianity by the influence of Edwin, king of Northumberland; but his wife, who was an idolater, soon brought him back to her religion. After his death, and the interregnum that followed, Sigebert, who had been educated in France, restored Christianity, and introduced learning among the East-Angils. Some pretend that he founded the University of Cambridge, or rather some schools in that place. Ethelbert, who was the last sovereign of this kingdom, and who received his crown from Ethelred in 790, was treacherously murdered by Offa, king of Mercia, in 792, who seized his kingdom; and from that time East-Anglia was united with Mercia.

ANGILICA, in Entomology, a species of *Pimplia*, found in England very rarely. It is black, anterior part of the thorax roundish, wing-cases fringed with dots, antennae reddish at the apex. Gmelin. This is the description of Fabricius, which Gmelin adopts. It was described by Fabricius in the species infectorum, under the name *Pimplia*; but in the latter arrangement of insects by that author, it is placed in the genus *Helops*, under the specific name *Pimpla*. Gmelin makes a subdivision of the genus *pimpla*, under the name *Helops*, in which this species is included.—Also, a species of *Chrysomela*, found in England. It is blue-black, wing-cases black, brassy and fringed with dots; wings red. *Ford.* Nov. Inf.—Fabricius.

ANGILCANA, a species of *Altica*, in the Fabrician arrangement, and found in England. It is in general black, except the wing-cases and tips of the legs, which are pale. Fabricius.

ANGILCANUS guta. See *Guttus*.

ANGILCANUS foder. See *Sudos*.

ANGILICUS, a word, or phrase, in the English *idio*; or a manner of speech peculiar to the English tongue.

ANGILICUS, in Entomology, a species of *Cerambyx*, found in England and France. It has a yellow body, and two oblique yellow stripes on the wing-cases. Gmelin. This is the Fabrician description, and in that arrangement it belongs to the *Rhagius* genus. It is also the lepta morax of De Geer, and Stemoceous of Geoffroy.

ANGLING is a branch of fishing; or the art of catching fish by means of a rod, to which is attached a line, a hook, and a bait. It is more generally practiced for amusement than for profit, and is a sport of considerable antiquity, and followed with the greatest avidity by some persons in every rank in life. It has some eminent advan-
tages over many other rural sports; it is but little dangerous, incurs but little expense, and is productive of some profit. It is peculiarly fitted for the placid and thoughtful; nor need the gay and volatile despair of finding their attention engaged, while the more active mode of fly-fishing remains in life. Perhaps there are few pursuits that display more elegant attitudes than that of throwing the fly; nor are there but few in which the expectation is so much kept alive, with so little bodily or mental exertion, as in this delightful branch of the art. On the other hand, simple float angling has its advantages likewise; for in this the inference and aged may partake, and the solitary or recluse may pursue the amusement, without fear of the interruptions of the busy or impertinent; here, likewise, the contemplative may combine relaxation with improvement, as few persons have a greater opportunity of studying nature in her varied garb than the angler.

The laws have ever been favourable to this pursuit, protecting the authorized fisher, and punishing the depredations of the poacher. As early as Edward I., we find, that imprisonment and triple damages, were awarded against any tarpellers, if a tainted at the suit of the party. 3 Ed. I. c. 29.

By Elizabeth it was enacted, that if any persons wrongfully take or kill fish, from any ponds, &c. kept for the purpose of angling, he or they shall be imprisoned, pay triple damages, and find securty for his or their good behaviour for seven years. 5 Eliz. c. 21. The 22d and 23d Car. II. c. 29, recites, that the use of an angle, net, hair, noose, troll, or spcar, or the taking of fish in any way, or the being aiding therein, without the consent of the owner, or lord of the manor, is forbidden; and that persons so offending shall, on discovery and conviction thereof, have triple damages awarded against them, to be levied by distress.

And in the same statute it appears, that any nuisance of the peace is authorized to take and destroy every instrument used for these purposes. By the 4th and 5th W. III. c. 23. § 5, 6. no person was even to have or keep in his possession any angle, net, or other engine for the taking or destroying of fish, other than the makers and sellers thereof; and than the owners and occupiers of a river or fishery. And again, 5 Geo. III. c. 14. § 1, 2, not only persons who entered any park or other ground fenced in, wherein there was any water containing fish, and rode thereout; but those who receive and buy such fish, shall be subjected, equally with the offenders, to seven years transportation. And again, § 6. the taking fish unlawfully from any water, not situated in enclosed ground, is punishable by the forfeiture of 5l.; but by the black act, the breaking down of the head and mound of any fish pond, was made felony without benefit of clergy.

There is no art, the practice of which appears more simple, at first view, than that of angling; yet there are few that require more nicety and precision, nor is there any for which it is more difficult to give precise rules. There is a species of acquired knowledge, amounting to a knack, that constitutes a successful angler, but which he can with difficulty impart to others.

The fish usually caught by angling are the salmon, salmon fry, salmon trout, bull trout or sea trout, eel, or whiting, bass, or bream, mullet, frit, bloodfish, balander, etc.; all which visit the salt water. Those which are likewise taken by this mode, and do not visit the salt water, are the trout, grayling, pike or jack, perch, tench, carp, chub, eel, eel, rudd, roach, dace or dace, gudgeon, bleak or whiting, minnow, loach, &c., which several fish feed under their proper heads.

These several fish require different tackle, baits of various kinds, and some are taken in one season, while others are secured in another; of all which it is essentially necessary that the angler should be aware, as well as of the particular weather, favourable to the sport.

The tackle made use of must be carefully attended to, the principal of which is the rod. An angler intending to fish at a distance from home, should be furnished with two rods; if near home, he may fill carry a spare top, or he may be much inconvenienced. When two rods are taken, it is prudent to let one be of the customary form; the other may be a strong cane, in the form of a walking-flick, which may prove useful in case of emergency. It should be so contrived as to fit the hook of the landing-net, and it will moreover be useful in fording rivers, &c. It is necessary to consider the size and nature of the fish in the choice of a rod. The larger kinds require one of considerable strength, with the addition of a reel and running line, passing through rings or eyes placed on the rod from one end to the other. A fishing-rod should be plant, yet firm, with an easy play in the hand, and a regular bend, as though formed of one entire piece. Those which are jointed with ferrules are the best, and for large fish, as salmon, it is proper that within each ferrule there should be a male screw, to fit into a female screw, within the attached joint, by which means the rod is farther secured, and is certain of a regular play. In dry weather it is prudent to dip each joint in the water previously to introducing them to each other, and if any difficulty occurs in undoing them from the swelling of the wood, they should be held over a candle or before the fire. A rod should be kept neither too dry nor too moist; in the one case it becomes brittle; in the other it is rendered rotten. It should be hung up with a weight attached to the end, by which it is kept from warping, and it may be varnished to preserve it from worms. See Fishing-rod.

The angler should farther have a variety of lines of various strengths, and of colours adapted to the waters he sports in, which is a caution of the utmost moment, and not in general sufficiently attended to. Lines should be coiled or wound on a cylinder. When wound, as it usually is, on a bit of split cane, or flat stick, forked at the two ends, or on long line machines, the sharp turns are apt to cut the gut or line. See Fishing-lines.

Hooks of various sizes are necessary, attached and unattached, with floats of cork, of quills, and of porcupine spars. Spare caps, split shaft, shoemaker's wax, bulletts, plummets, are all likewise necessary; nor should the angler forget a cleaning-ring, which is useful in disengaging the hook when entangled among weeds, or fastened to a slump. It is formed of a heavy braze or iron ring, of about two inches in diameter, with several yards of twine attached, and is made use of by pulling it over the large end of the rod, and gently letting down the line to the obstruction; when by pulling the twine, the hook will be either disengaged, or it will be broken off without damage to the reel of the line, by straining it or the rod.

A digger is likewise among the requisites, as fume fish by their eagerness swallow the hook with the bait; in which case, a piece of flat cane or wood, about six inches long, and half an inch wide, forked at the ends, and palmed down the throat, removes the hook, by gently pulling the line. A landing-net will often be found necessary when a large fish is caught; those are the best when made of size to fold up, and the handle may be the walking-flick rod before mentioned. All these, with any other necessary articles, may be taken in a balecket, first wrapped up in an oil skin case, when on the return, the fish, in the balecket will not injure them. For the articles necessary for fly fishing, see Fishing-flies.
It may in this place be remarked, that the prudent fisher will always be clothed in grave colours, or at least in such as are not gaudy. For those who weave much, but which is not a prudent method, a short hunting-jacket is convenient. The experienced fisherman will always likewise provide himself with spirits, in case of falling into the water or other accidents. There are many other small articles also necessary, as twine, pliers, feathers, a penknife; and it will be found useful always to be furnished with some trimmers, to act, if the fish should prove too good as expected.

The baits made use of must particularly attended to by the angler, he should not only procure the bulk of every kind, but he must be careful to appropriate his bait to the fish he means to entrap, and likewise according to the various seasons. He must select such articles to allure most, that nature gives at that particular time in the greatest plenty. For the fish of the fish is adapted to outward circumstances, preferring food at one time that at others it wholly rejects; and this is more particularly the case in fly fishing. An excellent mode of judging what bait is most likely to allure any particular kind of fish is, when one is caught to open it, and examine the fish, and whatsoever is found there will surely be the proper bait for others. It is said, but with what truth we are not aware, that the eyes of other fish are soft and sensitive. Baits made use of in angling are of two kinds, the natural and artificial; the natural are whatever is eaten by the animal in a state of nature, as small fish, frogs, worms of most kinds, insects in great varieties, as beetles, butterflies, all the tribe of Summer flies, moths, wasps, hornets, gnatshoppers, maggots of various kinds, and snails; vegetables are used with success, as wheat, barley, peas, beans, &c.: artificial baits are the forming of whatever imitates the natural food of the animal, as the making and painting small fish, and the imitating flies of various kinds, which latter forms a very considerable and intricate branch of the art. See Fly-fishing. Artificial baits are likewise various compositions in the form of paste: pastes are made with dough, bread, all kinds of flour mixed with honey, fruit, butter, oil, &c. and in mixing these, it is found useful to add a little cotton, tow, or lint, to make the paste more adhesive. The spawn of other fish is frequently used as a bait with success, and it is very commonly potted for this purpose.

Ground-bait is a previous method made use of by anglers to induce fish to frequent particular spots; some are in the habits of throwing this kind of bait into particular places every now and then, by which they are almost certain of finding sport among the fish who refer to this favoured place. Others only do it in the evening, or even an hour before they angle. Ground baits are of grains, barley, moulded bread, ruddings, blood mixed with chopped liver, &c. In running streams a tin box is introduced, bored with holes, with a plummet to sink it, and a line to draw it back at pleasure. The worms, crawling through these holes gradually, are a great inducement to the fish to hover about the spot. All the recipes of fishy oils and other allurements are useless. See Fishing-bait.

The proper season for angling are from the Spring to the Autumn, but much depends on the kind of fish angling for; some may be caught at all times, others, as those of passage, are only to be met with at particular seasons, and others, though always confined to one piece of water, yet are nearly torpid during the Winter, and are found only in the deeps. Weather influences fish much, and when the wind is in some points, few fish will bite. The most unfavourable is the Easter quarter; when the wind is safely no sport is to be expected. A warm lowering day is the most favourable, with flying flowers, and a light ripple on the water. Water slightly disturbed induces good sport; fish then do not easily distinguish the tackle, and are most voracious, having failed while the stream was clear. Hence angling is always good when turbid water is clearing, or in the rive before it becomes too thick. Opening a mill-dam, raising a sluice, or the turning water from a meadow, induceth the angler good sport, as it induces the fish to come to meet the food they expect. In waters affected by the tide, the flood is the best time for angling; but either ebbing or flowing is fit. Whirlpools, edges, the mill-tails, leads of bridges, and under the arches, are places the anglers should not pass over.

All places not disturbed by wind or weather are proper; deep spots, covered with weeds, are much sought after by fish.

Sometimes when you are angling in any spot, and have had good sport, and the fish suddenly leave off biting; it is probable a pike or some fish of prey is at hand, in which case a minnow, placed on your hook after, will probably take him; but the trimmers, before mentioned, are the best preventive. See Fishing.

Angling, Bladder, differs from trimmer angling, in this; instead of a cork, a bladder is made use of, by which means much diversion is occasioned; for as the bladder is drawn under water by the force of the fish; it returns by its own want of specific gravity, which serves to strike him more forcibly and prevents his disgorging the hook.

Angling, Float, is made use of in contradistinction to ground angling, trimmer angling, and fly angling, &c. and consists in the use of a line longer than the rod by two or three feet, with float not to link the float, but to let it go under water on the lightest touch or bite of the fish. In the rivers a cork float is most proper, in standing water a quill is generally used. Perch, chub, carp, tench, barbel, and grayling, are caught in this manner.

Angling, Ground, is practised with a fine rod and line, without a float, and sometimes produces excellent sport. A bullet or plumb of lead is attached to the line, eight or nine inches from the baited hook, by boring a hole and passing the line through it; at the lower end placing a float in the usual manner to prevent the plummet from slipping. This mode proves excellent for large deep-swimming wary fish; and in Winter when they confine themselves wholly to the deeps. A well-found worm is an excellent bait for this method, which is found very successful against the barbel. When one of these fish is observed to take the bait, as he bites strong, he should be instantly struck; the rod used for him likewise should be ringed, and furnished with a winch or reel, and twenty-five or thirty yards of line, which should have gin to the bottom of it. But as a general rule for other fishes, the rod and line should be fine, and when the bait is observed to be taken, the angler should not strike immediately; but slacken his line, to give the fish an opportunity to swallow the hook. Trout are often taken in this manner, as well as chub; for the former, morning and evening prove the best, except in cloudy weather, or muddy water, when you may fish for him the whole day.

Angling, Night, is of two kinds; that wherein the angler attends in person to watch his sport; and that wherein he lies down in different nooks, as trimmers, bladders, &c. and returns in the morning to see his success. By the former method may be taken some of the small and largest fish of most kinds; but among trout it has been found singularly successful; and it is observed, that the largest trout are caught by this means in the still clear deeps. The tackle used in this sport should be strong, and the bait striking; as the large garden-worm, flies, minnow, &c.
Angling. Sea. It is frequent for persons to go out inoats some way from shore, to angle for whiting, cod, etc.
From pier heads, and the mouths of rivers likewise, it is often
successful: first from the former are often taken
codd, cod, whiting, plaice, and small haddock, by means
of a strong rod and line well leade'd, with a cork float,
and a large hook, baited with scoured red worms, shrimps, and
grub. But from the latter, the inside of a small crab, whipt
round the hook with a little white wool; or a bit of any
other fish. If the water is very deep, the bait is permitted
to pass about mid water; if not, towards the bottom.

Angling. Snap. is a method made use of for those
fish that easily part with the bait when taken; or for any
fish, at those times when they are spawning, for being then
sluggish, they will easily disgorge the bait before the hook
has been sunk, but by means of a double spring hook, which
is struck with a forcible jerk the contrary way to that in
which the fish runs, he is secured. The bait hooks made
use of for this purpose are purchased at fishing-tackle shops,
being made with a double spring. The rod should be strong
and the line strong likewise, and not so long as the rod, with
a large cork float. The mode of baiting the snap hook is
thus: make a hook with a sharp penknife in the side of the
bait fish, then put the gimp that is fastened to your hook
into it, and draw it out at the mouth, till the spring hook
comes to the place where the incision was made; when this
is done, put it into the belly of the fish, then have a piece of
lead, about the size of a horse bean, though of an oval form,
with a hole through it from end to end large enough for the
gimp to go through, draw it down to the fish's mouth, then
put it in it, and few it up.

Angling. Trimmer, is an economical mode made use
of either at night, or when you are fishing by other methods,
by setting some trimmers at a distance, waiting the event, and
continuing your angling in another part. It is particularly
successful in meers, canals, large ponds, or any still water.
It requires a round cork, six inches in diameter, with a
groove on which to wind your line, except so much of it
near the line hook, as will allow the bait to hang about mid
water; and so much of the other end as will reach to the
bait or the float; but if you have a float, then need not be
fastened at all. As soon as a fish takes the bait and runs
away with it, the line unwinds itself off the trimmer without
giving any check; but it will be prudent when you come to
the line, to give a light jerk to make your prey more
secure.

Angling. See Fishing.ang.
A

ANG

3. Utin hie esrwillie fet us to daig.
   Our laft super-excellent give us to day.
5. And forges us feyldarnie, we forfegan feyldum
   urum,
   And forwe us debts ours, so we forgiven debts of
   ours.
6. And no inlead uffg in culluny
   And not lead us into temptation;
7. Ah geryng uffg frin lif.
   But free us each from evil. Amen.

In this Specimen we fee that there is not above three or
four words altogether obsolute, and quite unintelligible to an
English reader. The language spoken by our ancestors
above a thousand years ago was capious, expressive, and
musical; abounding very much in vowels, diphthongs, and
poly-syllables, which are esteemed the greatest excellencies of
language. The substance of it resembles modern English,
and most of the words are still in use, though the spellings
and meaning of many of them are changed. The Anglo-Saxon
language was chiefly retained by the English; and it over-
came all the efforts of the Conqueror and his successors to
institute the Norman in its place. It forced its way at
length into the courts of justice, from which it had been
excluded almost 500 years; and in 1352, an act of parliament
was made, that all pleadings in all courts, both of the king
and of inferior lords, should be in the English tongue. The
Anglo-Saxon that was spoken in England about 200 years
after the conquest, was surprisingly pure, and had very little
mixture of Latin, French, or any other language. In the
course of the 14th century, it gradually changed into what
may be called English. This was owing to various causes.
The animosity subsisting between the politeriy of the Nor-
mans and Anglo-Saxons was extinguished, and they were
confoliated, in a great measure, by inter-marriages and
other means, into one people. Many of the Normans, who
were engaged in agriculture, trade, and manufactures, found
it necessary to speak the prevailing language of the multi-
tude. Moreover, Chaucer, Gower, Wickhili, and others,
composed voluminous works, both in prose and verse, in
English; and being men of learning, well acquainted with
French and Latin, and some of them with Greek and Ita-
lian, they borrowed many words and idioms from those lan-
guages, with which they adorned and enriched their own.
Thus the Anglo-Saxon tongue was greatly changed, and the
language of the bett writers approached nearer to mo-
dern English than that of Robert of Gloucester and others
who flourished in the 13th century. Nevertheless, the Eng-
lish of the 13th century was still so different from that of
the 18th and 19th, that a mere English reader cannot al-
ways understand it without a glossary. Besides various dia-
lects and different modes of pronouncing the English pre-
vailed, at the time to which we now refer, in different districts.

Anglist: The editors of the New Testament are extant
in manuscript, and apocryphal accounts is given of several of them
in Le Long's Bibliotheca Sacra; the best edition of which is
that of Marth, published at Halle, in fix vols. 1778—
1792. Some books of the Bible were translated by Bishop
Eadfrid, and the gospel of St. John by Bede; but the
tradition that King Alfred translated the greatest part of
the New Testament is very uncertain. The whole verion
has never been printed, but the four gospels have been pub-
lished by Matthew Parker, William Lille, and Thomas
Marshall, in 1571, 1638, and 1665; and as they are evi-
dently translated from the old Latin, they may be of use in
determining the readings of that version. Marth's Michaelis,
vol. i. p. 159.

ANGLURGE, in Geography, a town of France, in the
department of Marine, and chief place of a canton, in the
district of Sainte, three leagues south-south-west from Sa-
umo.

Anglus, Thomas, in Biography, an English Catho-
lic priest, whole name was White; was a protege
fellow of the Aristotelian philosophy in the seventeenth
century. Being of a lowing disposition, he wandered
through several parts of Europe. After residing for some
time at Paris and at Rome, he was principal of a col-
lege at Lisbon, and sub-principal at Douay. In Eng-
land he adopted the opinions of Sir Kenelm Digby, with
whom he lived, and refilled the efforts made by Des
Cartes to profelyte him to his own systen. He was a
man of a singular character, and combined some degree of
acuteness with considerable obscurity of understanding; but
his writings did not excite the notice and opposition which
he expected. Some of them, however, were cenured by
the congregation of the Index Expurgatoriums at Rome, in
1658; particularly a treatise entitled "Institutiones Peripa-
teticae ad mentem fummi viri clariffimni Philosophi Re-
almi Equites Anglie," printed at Lyons in 1656. He wrote
also "Quello Theologica," with a view of reconciling, in
the principles of Digby's periapteticism, free will with effec-
tual grace; "Institutiones Theologica," and several other
tracts. He is said to have written, at the period of the
commencement of the contells between Charles I. and his
parliament, in favour of the doctrine of passive obdence;
and he surived the restoration of Charles II. Gen.
Dict.

Angoi, or Angoy, in Geography, a province of
Africa, situate upon the Lango coast, lying between Ba-
congo to the north, and Congo to the south; separated
from the former by the river Cabinda, and from the latter by the
Zaire. The inhabitants are extremely indolent, and the
country little cultivated; the coasts abound with fish, and
the foreilfs with apes and other animals; the chief town is
Bomba-Cengoy. The chief port is Cabinda, at the mouth
of a river of the same name, about five leagues north of
Cape Palmierino, on the north side of the mouth of the
Zaire. The bay lies commodiously for trade, wooding and
watering on the sea-shore.

Angoka, Angoka, or Angadoka, islands of, are
islands of Africa in the Mozambique Gulf, and to the south
of Mozambique, situate in 16° 20' south latitude. They
are fertile, but inhabited. The violent currents occasioned
by the river St. Efrin, and which drive vessels to the north-
west against the shores of the continent, terminate near
the northernmost of these islands.

Angol, or Villa nueva de las Infantes, a town of South
America, in the province of Chil, situate on the arm of the
river Biobio, and about 123 miles north north-east of Bal-
diva. This is one of the most agreeable towns in Chil. S.
lat. 37° 36'. W. long. 75° 59'.

Angola, a country of Africa, anciently called
Abonda, or Ambonda, and afterwards Dongo, and by the
Portuguese Angola, may be divided into Angola proper, or
that which was formerly a province of Congo, and the king-
dom of Angola. In the first sense, it is confined between
two rivers of Danda, which parts it from that in the north,
and that of Uanana on the south. In the second sense,
including its additional conquests, it extends along the Eth-
riopie coasts from the mouth of the Danda, situate in S. lat.
8° 10', to that called St. Francis, in 13° 15', according to
some; but according to the most accurate geographers, quite
to Cape Negro, in 16° 27'. According to this last extent,
Angola forms a coast of 480 miles, but its greatest depth
casts...
The whole of Angola proper abounds with mountains, intermixed with a few plains, on the sea side, and between the feet of the mountains. The kingdom of Angola, in its most flourishing state, contained the following 17 provinces: 1. Chifama, under the 11th degree of south latitude, and near the mouth of the Coanza, which produces an excellent salt, and fine hony and wax; Sumbi, in the same climate with the former, admirably adapted for breeding cattle and growing grain, if the inhabitants were not shamefully indolent; Benguela, retaining the title of a kingdom; Rhima, situated between Sumbi on the west, Lubulo on the north, Temba on the east, and Scotta, on the south, and producing great quantities of grain and of fish; Scota, south of the former, and north of Benguela, extremely montaneous, and having a rock that extends 30 miles, the top of which is cultivated and inhabited, and enjoys a most fertile soil, and water, and in the lower parts feeding large herds of cattle: Bembia, extending on one side along the sea, and on the other dividing Angola from the other foreign states in the south, populous, and abounding with cattle; Temba, a flat low province, full of rivers and small streams, and abounding with wild cattle and whole-frond roots; Oacco, situated between the Coanza on the north-east, and Lubulo on the south-west, beautifully variegated with hills and plains, and furnished with springs and streams which render it fertile; Cabeceo, having Coanza on the north-east, and Rhima on the south-west, populous, and well watered with cattle and other provisions, and having also a mine of iron on a mountain called the Iron Mountain; the lord of Oacco was baptized in 1657, and the lord of this province in 1578, and they both induced many of their subjects to become Christians: Lubulo, situated along the southern banks of the Coanza, famed for its noble palm-trees, and yielding in great abundance of wine, and other produce, most of the inhabitants are Christians. The ten provinces above recounted lie on the south side of the Coanza; and within the Coanza is Loanda, an island on the coast of the kingdom of Bengo, chiefly remarkable for the capital of Angola, called San Paulo de Louanda, built upon it by the Portuguese in 1578, large and populous, and well defended: Bengo, commonly known by the name of Zevoa, yielding maize and manioc root, of which the inhabitants, who are all Christians, make their bread; Danda, situated on a river of this name, dividing Angola from Congo; well watered, and fertile in grain and all kinds of fruits, but much infected with crocodiles and serpents; the inhabitants are Christians: Mofche, extending along the northern banks of the Coanza, very fertile in manioc, having mines of several metals, and producing zimba, or their money, of such exquisite beauty, that the Congueʷfe will give a flave for a collar of them, and so much valued as to be worn by persons of the highest rank, particularly the ladies, about their necks, arms, legs, and middle; Ilambba, divided into the higher, between Bengo and Cataca; and the lower, between Dandla, to the north, and Bengo to the south, both fertile and tributary to the Portuguese, and the former having mines of excellent iron: Oari, contiguous to Mofche, well watered, and distinguished by the libato, or ancient royal residence of the kings of Angola; and Embacca, or Membaca, situated on the north side of the river Lucala, wholly subject to the Portuguese.

The principal rivers of Angola are the Danda, Coanza, Rhima, Lutano, or San Francisco, and Congo; the traffic of this country is by sea, of whom the number is very great, partly for sale and partly for domestic use. The traffic is said to have diversified the people of their humanity, as parents fell their children, and husbands their wives, at a very cheap rate. Polygamy is prevalent in this country; and so is also, amongst those people that are not converted to Christianity, the inhuman custom of butchering a great number of human victims at the funeral obsequies of their relations, and piling their carcases in heaps on their tombs.

Before the arrival of the Portuguese, this kingdom was subject to the kings of Congo, and governed by a deputy. One of these deputies, whose name is said to have been Ngola, or Angola, shook off the Congoe янke, and assumed the royal title. In this rebellion the ambition of Ngola was satisfied by the Portuguese, who, discovering this coast in the year 1484, Ngola lived to a very advanced age, and was much respected; but having raised a favourite slave to his throne, and of the two sons of his father, he ordered them to court under a pretence of having them educated as his children and heirs to his crown; but upon the arrival of the eldest, the infant caused him to be murdered. The incensed parent avenged himself by plunging a dagger in her breast; and for this act of retributive justice, the Angolans placed the crown on her head, but the immediate surrender it to her surviving son. He was succeeded by one of his younger sons, Damiu Angola, who, upon ascending the throne, determined to put all his brethren to death. Two of them, however, escaped. Damiu was a monster of perfidy, cruelty, avarice, and Lewdness; but happily for his subjects, his reign was not of long duration. Damiu was succeeded by Ngola Chilvagni, a warlike prince, who extended his conquests along the rivers Danda, Lucalla, Zanda, and Coanza, and literally tinged them with blood. Having carried his victories within eight leagues of Loanda, San Paulo, he caused a tree to be planted, which he fixed as the limit of his ravages, near which the Portuguese afterwards erected a fortress, and they called the tree Isanda, or Ilandura. This ambitious and successful monarch could not forbear fancying himself to be one of the deities of the country, and exacting honours similar to those which were paid to them. It was not long, however, before he was observed to submit to the fate of other mortals. His successor, Nyingha Angola, was a cruel tyrant; but the country was soon delivered from his oppressions; and exchanged those of the father for the more severe and grievous ones of the son, Bandi Angola. The life of this oppressor was threatened by the rebellion of his aggrieved subjects; but the Portuguese defeated the rebels, and thus ensured the favour of the king, who took them into his service, and even into his council. The Portuguese general was the favourite at court, and more especially with the daughter of the sovereign. Her attachment was soon discovered by the father; and with a mind inflamed by resentment, and an apprehension that a connexion of this kind would be the means of depriving him of the crown, he formed a resolution to extirpate all the Portuguese, as a menace essential to his own security. They were, however, appeased by designs by the young princes, and retreated into the kingdom of Congo, without interruption or molestation. The Portuguese general obtained permission of the king of Congo to fall for Lisbon, under a promise of returning with a powerful reinforcement, in order to avenge himself on the perfidious...
An

ning sovereign of Angola. He soon obtained the desired appointment, and returned, at the head of his squadron, up the river Coanaz; he landed his forces about two leagues from Mafinga, a city on the banks of the Coanza, and erected a fortress for their security. The king of Angola prepared for his defence: but in an engagement between his forces and the Portuguese, he suffered a total defeat, and was merely able to escape with his life. His discontented subjects united with the victorious troops of the admiral, and after committing many dreadful ravages, executed their purpose of massacring their sovereign. Bandi Angola was succeeded by his son Nguia Bandi, who began his reign by wreaking his resentment upon all who had opposed his election. The next objects of his hatred and jealousy were the Portuguese; but they, though much inferior in number, obliged him to save his life by flying, first into the island of Chicenda, in the river Coanza, and from thence into one of the neighbouring deserts of Oacoo, where he was permitted to live among the wild beasts, without any other influence than that which the deserts afforded him. Having been guilty of treachery in evading the fulfilment of a contract with the Portuguese governor, and dreading his resentment, he condescended to interest his father Zingha, whose son he had murdered, to undertake an embassy to the governor, and to procure peace with him upon any terms. In order to effect her purpose, he advised her even to embrace the Portuguese religion, if it should prove the means of facilitating her negotiations. Zingha accepted the office, and was received by the viceroy in a very respectful manner. During her stay at Loanda, the governor, seeing the influence which he could gain by the father of one of his slaves, Nguia Bandi delayed executing the flippulated articles, and determined to renew the war against the Portuguese. In executing her purpose, his troops were all cut off, and he was forced to fly into a little island in the Coanza, where he was murdered; and he escaped being murdered by terminating his life with a dose of poison administered to him by order of his father Zingha. Zingha ascended the throne; and, in order to secure her power, she murdered her nephew with her own hand. The object to which her principal attention and anxiety were directed, was the deliverance of the realm from the Portuguese, who were now become numerous, wealthy, and powerful, and who were dreaded by all her subjects. With this view she commenced a war against them, and gained at first some temporary advantages. At length she was abandoned by her allies, and by her own forces, and obliged to abdicate her dominions, and to retire into some of the eastern deserts, where she remained un molested. During her retirement, the Portuguese appointed Ango Oari, a descendant of the royal family, to be king; and before they crowned him obliged him to declare himself a Christian, and to be baptized under the name of John. His reign, however, was of short duration; death made way for his successor, Philip, the second Christian king, who prolonged his reign to the year 1660. Zingha, in the mean while, seeing herself stripped of eleven of her belt provinces, and divested of her authority and tributary in the other five, renounced her religion, and devoted herself to all the idolatrous superstitions and inhuman rites of the Giagas; and she thus acquired such authority and influence, that they were ready, at the first intimation of her will, to follow her through the most hazardous enterprises. By this influence she was able to harass the Portuguese, and to keep them in a state of perpetual terror. At length they sent two deputies to negotiate a peace with her; but their embassy was unsuccessful. Upon renewing the war before the forts of Mafinga, she lost a great number of her men, her two fathers were taken prisoners, and she herself escaped with great difficulty. Zingha had two councils, one for affairs of state and war, the other for religious concerns; the first consisted of four officers; the other of five singolos, or privies of the Giagian religion. Having convened these nine counsclors to deliberate, she propounded to them whether she should, in praise the Christian faith, or continue in the religion of the Giagas. She had recourse to the usual mode of consulting the spirit of her ancestors, and the oracle's answer was such as she had foreseen. The demon declared against his own interest, and exhorted her to be reconciled to the faith from which she had apostatized. While this furious was carried on, she had her troops collected, and in the speech, which she addressed to them, she confessed and bewailed her apostasy, and declared her purpose of conforming to the observance of the Christian precepts and rites. Her address was received with universal approbation, and she considered this as a propitious omen of their speedy conversion. The consequence was her reconciliation with the Portuguese, and singular zeal and activity in promoting the profession of Christianity among her subjects. She prohibited the practices of heathenism which then prevailed, under the severest penalties; and in order to encourage marriage, and thus to restrain the plurality of women, she took a husband, and published an edict against polygamy, which produced effect. She also reformed the tyranny of the lords in her dominions, who did not allow their vassals to marry without their licence, for which they paid a considerable sum. Nothing seemed to be now wanting to complete the progress of Christianity but a new supply of missionaries from Europe; in order to obtain these, she sent a letter to Rome in the year 1658, and received a favourable answer in 1662. The pope's letter was publicly announced in the new church which she had built, on the 15th of July, and she repaired to the place, with the letter fastened about her neck in a rich golden purse. After much solemn ceremony on this occasion, she gave a magnificent treat to the Portuguese resident, and at her court, which was accompanied with the grant of largesses to her chief officers, and with a ratification of a number of slaves; and terminated in her performing, at the head of her ladies of honour, who were arrayed and armed in the Amazonian style, a kind of combat, in which this princeess, though above 50 years of age, behaved with great vigour and activity. While the queen was diligently employed in promoting the conversion of her subjects in her new capital, she was seized with a disorder which proved fatal. Father Antony attended her in her last moments, and received instructions concerning her interment; and she committed the whole conduct of her last obsequies to him; she likewise recommended, with her last breath, the propagation of Christianity, the protection and encouragement of the missionaries, and the enforcement of all the edicts against the impious rites of the Giagas. On the 17th of December, in the 52d year of her age, she closed her life and reign. The deceased queen was buried with great pomp; and, from respect to her memory, her sister Barbara, who succeeded her, was inaugurated a second and a third time, with joyful acclamations. She was a very zealous Christian, but her efforts to promote Christianity were restrained or discouraged by an ill-natured and cruel husband, whose name was

Mona
Mona Zingha, and who had been raised by the late queen from the condition of the son of a slave to the rank of her chief general. The queen’s disorder and infirmities increased, and, after a short reign of about two years and a half, she closed her life A.D. 1666. Mona Zingha succeeded her, and exhibited sufficient evidence of his abhorrence of Christianity, and of his steady attachment to the abominable rites of the Ciaigan sect. To remove all doubt with regard to his sentiments, he caused five young ladies of the first rank to be buried alive in his wife’s grave. By various methods to which he had recourse, he almost exterminated Christianity; but his career was soon stopped by Don John, the prince Charles Barbara’s first husband, from whom she had been divorced on account of his having another wife. Upon his arrival, the usurper fled into an island in the Comor, but he returned again, and having killed Don John, reigned the throne without any further opposition. Don Francisco, however, the son of Don John, headed an army against the usurper, and Mona Zingha having been defeated and slain, Don Francisco became sole master of the empire. The following kings of Angola professed only a shadow of royalty. The root of this description was Ngola Sechio, who revolted, and was taken prisoner. His head was cut off, put in a pickle, and sent from Loanda to Lisbon. After this it does not seem that the Portuguese government have thought it proper or perhaps safe to annul their Angolic subjects with even a mock monarch of their own nation; but they have committed the sole command of the kingdom to the viceroy of Angola, and his council. This kingdom hath long since been erected into a bishopric, suffragan to that of St. Thomas. The manners, language, religion, dress, and ceremonies of the Angolese, are similar to those of the inhabitants of Congo. Mod. Un. Hist. vol. xiii.

**ANGOLENIS** in Ornithology, a species of Falco, found in Angola. It is white, cere bluish, orbits flesh-coloured and naked, primary wing-coverts and base of the tail black. Gmelin. The size of this species is half as large again as the kite. The bill is whitish, long, and but little curved; irides straw colour; head and neck clothed with feathers, black, crest long; head, neck, back, breast, belly, and posterior wing-coverts of a pure white; greater wing-coverts and primaries black; the last tipped with white; end of the tail white; legs dirty white and fealy. Latham, Gen. Syn. This species was first described by Mr. Pennant from specimens in the collection of R. P. Parry, Esq. He observes, that they were very restless and querulous, and more active than is usual with this flagellis race.

**ANGOLENIS**, a species of Merops, of a shining golden-green colour, with a cinereous band through the eyes spotted with black; wings and wedge-shaped tail cinereous beneath; chin yellow, throat chestnut. Gmelin. This is **Aplaster Angolenis** and Le Guipier d’Angola de Briffon, who figured and described it from a drawing sent to him by M. Le Poivre. It is Le petit Guipier vert & bleu a queue étagée de Buffon, and Angola bee-eater of Latham, Gen. Syn. This bird is five inches and a-half in length. The bill is three quarters of an inch in length, and black; the irides red; upper part of the head, neck, body, and wings, are green glossed with gold; on each side of the head an ash-coloured stripe dotted with black, beginning at the base of the bill, and passing through the eyes; breast, belly, sides, and thighs, greenish blue, with a slight golden tinge; under-tail coverts greenish, intermixed with chestnut. The side feathers of the tail margined with cinereous; legs ash-coloured, claws black. Latham, &c.

**ANGOLENIS**, a species of *Toxol* that inhabits Angola. This is the black grosbeak of Edwards, and Angola gros-
under the command of a sultan. The Armenians have seven churches, besides a monastery; and the Greeks, two. 

Angora is famous for the battle between Tamerlane and Bajazet, A. D. 1402, which has immortalized the glory of the former, and the fame of the latter.

ANGOR, a province or kingdom of Abyssinia, formerly rich and fertile, but almost ruined by the Gallars, who are now in possession of it.

ANGOTE, a town of Africa, in the kingdom of Congo, and province of Pango.

ANGOULEME, a city of France, and capital of the department of Charente; before the revolution, the capital of Angoumois, and seat of a bishop, suffragan of Bourdeaux. It is sited on a rock, at the foot of which runs the river Charente. The inhabitants are said to be about 8000, and their manufactures are paper. N. lat. 45° 30', E. long. 8° 45'.

ANGOUMOIS, a district of France, before the revolution a province, bounded on the north by Poitou, on the east by Limousin and Marche, on the south by Perigord, and on the west by Saintonge. It is 15 and 18 French leagues in length, and about 16 in breadth. The principal rivers are the Charente and Touvre; there are many iron mines in this province, and the land produces wheat, rye, barley, oats, saffron, wine, and all kinds of fruits.

ANGOSTRINA, a town of France, in the department of the Eastern Pyrenees, and chief place in the district of Prades, on the frontiers of Spain; four miles north-north-west of Puyara, and eight west of Mont Louis.

ANG. See Guy and Loango.

ANGRA, a sea-port town of Terceira, one of the Azores, the capital of that island and of all the Azores, and the residence of the governor. It is situated in a bay between two mountains on the south side of the island, and it is equally secure against storms and the assault of an enemy. On these hills are two pillars, and a watchman who gives signals of ships approaching the island by means of flags. The town is said to have received its name from Angra, a creek, bay, or lagoon for shipping; this town being the only convenient harbour in all the Azores. It opens from the cast to the south-west, and is not above four cables length in breadth, and, according to Frazier, it has not above two cables of good bottom. In summer, ships may ride here with safety; but when the storms of winter come on, the approach of which is indicated by clouds hanging over the Pico, a high mountain in another of the Azores, and the flitting and chirping of flocks of birds round the city, ships should put off with all expedition to sea. The town is well built and populous, and is an episcopal see, under the jurisdiction of the archbishop of Lisbon. It has five parishes, a cathedral, four monasteries, and as many nunneries, besides an inquisition and a bishop's court, which extends its jurisdiction over all the Azores, Flores, and Corvo. The town is surrounded by a wall and dry ditch, and defended by a strong casle, in which king Alphonso was imprisoned by his brother Peter, in 1668. The houses have a handsome external appearance, but they are indifferently furnished, for which the Portuguese allege, as a plea for their poverty, that warm furniture would be inconvenient in so hot a climate. N. lat. 38° 30', W. long. 27° 12' 15". At Angra are kept the royal magazines for anchors, cables, sails, and all sorts of stores, for the royal navy or for merchantmen in distress. All maritime affairs are under the inspection of an officer called "defambargador," who has subordinate officers and pilots for conducting ships into the harbour, and the proper watering places. The English, French, and Dutch, have each a consul here, though their commerce with the Azores is not very considerable. Mod. Un. Hist. vol. vii. p. 55, &c.

ANGRA DE LOS REYES, a town of South America, in the capitalship of Rio de Janeiro in Brazil, subject to the Portuguese, about 56 miles from Rio de Janeiro. It is situated upon the coast, in a small bay, whence it has its name; being, in English, King's Bay. It has two churches, a monastery, a small guard-house of about 20 soldiers. Its chief produce is fish. S. lat. 2° 58', W. long. 17° 41'.

ANGRA, or Great Bay, lies on the western coast of Africa, to the north of Cape Blanco, in N. lat. 20° 55', and W. long. 17° 10'. This is the most westerly coast of Africa.

Angra River is also on the coast of Africa, in N. lat. 1°, and E. long. 9° 35', having at its mouth the island of Korisco, about five leagues south of Cape St. John, which is its northerly extreme point, as Cape Eufuras, seven leagues from Cape St. John, is the southerly point.

Angra River is also on the same coast, and on the south side of the Cape, and of the river Cabot.

Angra Island lies in the Persian gulf, and has a spacious harbour at Brak; but it is uninhabited.

ANGRA, a river of Abyssinia, formed by several streams in the provinces of Tichken and Sire, and which, by its confluence with the Graugna, forms the Tachazze.

ANGRECOM, in Botany &c. Epipedum.

ANGRIK, in Ancient Geography, a people of Germany, supposed by some to have been the name of the Angiri of the middle age; situate, according to Tacitus (Annal. ii. c. 8.), between the Weser and the Elbe, and extending eastward beyond the Weser as far as the Cherufi, on which side they raised a rampart; with the Tubantes on the Elbe to the north; to the west the Elbe and the confines of the Buriki, and to the north between the Chamas and Apuliani. They are placed by Prolemy between the Cushti and Cati, or Saiwi. Their territory is supposed now to contain a part of the country of Schamburg, half of the bishorip or principality of Minden; and to the south, the greatest part of the bishorip of Olmnburg, the north part of the country of Techlenburg, and a part of the county of Ravenberg. Some trace of the name is observable in a small town of Ravengberg, called Engern.

ANGROGNA, a parish of Piedmont, watered by a river of the same name, and producing excellent fruits, particularly chestnuts. This is a valley surronded by high mountains, to which there is ascent only by two passes. At a village called La Tour, the valley preachers used to officiate, and qualify young men for the ministry, without disturbance, before the reformation.

ANGRUS, a river of Ilyria, which, according to Herodotus, ran towards the north-east, paffed along the plain of the Triballi, and discharged itself into the Brongus, which joined the Iler.

ANGSANA, or Angsaya, in Botany, names by which some authors have described the draca arbor or dragon-tree; one of the trees said to afford the fanguis draconis, or dragon's blood of the fishes.

It is esteemed an altringent, and an excellent remedy in the apthae.

ANGUADA Cape, in Geography, is the most westerly point of Porto Rico Island in the West Indies, and is distant from Cape Sumana, or the nearest land at the north-east of Hispaniola island, 22 leagues.

ANGUEAH, a considerable river of Abyssinia, not far from Killah, in N. lat. 14° 24' 34". Where Mr. Bruce crossed it, it was 50 feet broad and three deep, and the largest river which he had seen in Habelt. It was perfectly clear, and ran rapidly over a bed of pebbles. It was full of small fish,
fish, esteemed excellent. It has its name from a beautiful tree which covers both its banks, and which, by the colour of its bark and richness of its flowers, is a great ornament to it. Bruce's Trav. vol. iii. p. 113.

ANGUEG, in Zoology, a name given in Abyssinia to the water-lizard, or caudiverba of the Italians.

ANGUELLA, in Ichthyology, a name by which some former naturalists distinguished the species of Athetina Hesperus of Linnaeus, a small fish that inhabits the shores of the Mediterranean sea. Pisciculus anguilla Venetus dictus; fortes hexas. Rondeletii, vel athetina eujdion. Wld. Ichth.

ANGUENIS, in Ancient Geography, a place of Africa, situated, according to Hardouin, in Numidia.

ANGUEIR, Francis and Michael, in Biography, sculptors, were born at Ét in Normandy. The elder, Francis, was born in 1634 and having been brought up under Guillaum, a sculptor at Paris, was sent for to England, and there acquired a sufficiency to enable him to visit Italy for improvement. After having spent two years in Italy, he returned to France, and was made keeper of Antiquities by Louis XIII., and had apartments in the Louvre. He was employed in several celebrated works, chiefly of the monumental kind, such as the tomb of James Sourn, at St. John de Lateran; and the monument of the duke de Montmorency, at Moulins. He died at Paris in 1669.

Michael was born in 1612, became an artist at 15, and employed his first savings under Guillaum, at Paris, for visiting Italy, where he entered into the school of the famous Algardi at Rome. After 15 years he returned to France, and assisted his brother in executing the monument of Montmorency. His reputation was great, and he was employed, according to the taste of the times, in many works of decoration. He adorned the apartment of queen Anne of Austria, in the old Louvre, with many allegorical figures; he executed the altar-piece of the church St. Denis de la Chartreuse, and the rich sculpture of the gate of St. Denis. His chief work was a marble crucifix over the high altar of the church of Soissons. He died in 1666. Gen. Biog.

ANGUILARA, in Geography, a town of Italy, belonging to the Venetian States in the Paduan, 12 miles south of Padua.

ANGUILHAS or Cape d', lies to the east of the Cape of Good Hope, on the African coast in the Indian Ocean, in S. lat. 35° 59', and E. long. 26° 36'.

ANGUILA, or Snake Island, so called from its snake-like form, is the first of the smaller Antilles, and the most northerly of all the Caribbean islands possessed by Britain in the West Indies. On the south side it has good anchorage and a gentle current, but on the east side it is inaccessible on account of flats, sands, and small islands. It was discovered and settled by the English in 1650; but the first cultivators were expelled by rapacious invaders, particularly French pirates; and after the revolution, a party of wild frith. New settlers from Barbados and other English Caribbees, knowing the value of the soil, removed to Anguilla, and carried on a lucrative trade, without any government, civil or ecclesiastical. In 1735, a small body of their militia relieved the attack of a considerable number of French, and obliged them to retire with great loss. The inhabitants inhabit mostly by farming, planting India corn, and other kinds of hufusbandry. The climate is healthy, and the people strong and vigorous. The exports, in 1776, amounted, in sugar, rum, and cotton, to near 60. The island is 28 leagues in length, and three in breadth; and is fringed with 25 leagues north-west of Barbuda, and 15 from St. Christopher's. N. lat. 18° 15'. W. long. 63° 57'.

ANGUILA is also a bank island, and east of the great Bahama bank, and north of the island of Cuba. N. lat. 23° 22'. W. long. 78° 47'.

ANGUILLA, in Ichthyology, a species of Silurus. This is the common eel, having the lower jaw longish, and the body, of one colour. Linn. & Gmel. The dorsal fin is to contain 1000 rays, pectoral fin 19, and the anal fin 100. See Eel.

ANGUILLA INDICA, in Natural History, a name given by Willoughby to a species of Trichiurus in the Linnaean arrangement of fishes. See Trichiurus Indicus.

ANGUILLAE, a species of Tenia that inhabits the intestines of cattle. The head is febile, distinct, and thickish, joints obtuse, with irregular protuberances, and two mouths on one side. The body consists of about 600 joints, and is sometimes four feet in length, front of the head truncated, the first eight joints longest. The upper joints of the body are nearly square, and twice as long as they are broad, the lower ones eight times as broad as they are long. Gmelin, Redi, &c. This is a tenia claviceps of Goze.

ANGUILLARIA, in Geography, a town of Italy, in the diocese of the church and province of Patrimonio; situate on a small river near the lake of Bracciano, 12 miles north-west from Rome.

ANGUILLARIA, Giuolanda Dell', in Biography, an eminent Italian poet, was born of a family at Sutri, in 1517. From Rome, where he was engaged with a printer, and whom he left on account of an intrigue with his wife, he went to Venice, and formed an intimate acquaintance with a bookseller, who bought his translation of Osilo's Metamorphoses, which contributed to his reputation. It was first published at Paris, and dedicated to Henry II.; and his taste, in consequence of this work, was probably the cause of the pomp with which his tragedy of Gismon was acted at Vicenza, in 1569, where Palladio was employed in erecting a magnificent temporary theatre for the purpose. He undertook a translation of Virgil's Aeneid, but never finished it. By various other poems, fatalical and burlesque, he obtained a precarious subsistence. He died at Rome in indigent circumstances, and in consequence of his dissolute mode of living. Gen. Biog.

ANGUILLARIA, Lewis, an Italian botanist of the 16th century, travelled over the greater part of Greece, the islands of Cyprus and of Candia, over Switzerland, &c. Returning to Italy, he was made director of the botanical garden at Padua, in which post he continued to the time of his death, in 1550. He left behind him a work on the knowledge of simples, in Italian, which was published by Murinelli, at Venice, in 1499. It was afterwards translated into Latin by C. Bauhin, and printed at Basle in 1593, in 8to. Haller says (Bib. Botan.), Anguillaria was the first Italian who had travelled to acquire a knowledge of plants, in which he attained to such perfection as to be able to correct the works of Dioscorides and of Matthiolus. "Exhausius auctor, qui recte viderat, paulo fuisse docuiciit." This deficiency is supplied by Bauhin, in his edition of his works.

ANGUILLARIA, in Botany. See Ardisia. Anguilaria is made a distinct genus by Gmelin, though his ang. bahamanis and ang. excedeis are the same plant. Linn. Trans. vol. ii. p. 22.

ANGUILLARIS, in Ichthyology, a species of Silurus, that inhabits the Nile, and is described by Hassel and Roelf, Aleppo. The dorsal fin is single, and consists of 70 rays, and it has eight bars. Gmelin. Body above the lateral line marked with black and grey, beneath reddish grey. It has two bars on the upper lip, four on the lower lip, and one at each angle of the mouth. The rays of the gill membrane are nine, dorsal fins 70, and sometime 72, pectoral fins eight, ventral fins seven, anal fin 50, and caudal fin 20.
ANGULIFORM, in Zoology, a species of \textit{viper} found in vegetable fossils of four pale, infusions of blighted wheat, and other grains, \\&c., and known generally by the name of \\
\textit{puff-clad}. It is of equal size throughout, and somewhat rigid. \textit{Gmelin. See Eels microtopia.}

\textbf{ANGUINA, in Botany. See Calla and Tricosanths.}

\textbf{ANGUINA, in Conchology, a species of \textit{serpula} that inhabits the Indian Ocean. The shell is roundish and somewhat spiral, with a longitudinal articulated suture. It varies considerably in form, being either round or angular, straight or waved, smooth or rough, and the articulations of the suture often obsolete. The \textit{serpula muzica} of Born is a variety of this species. \textit{Gmelin.}

\textbf{ANGUINA, in Entomology, a species of \textit{phalana}, of the \textit{bombyx} family, found in North America by Abbot, and described by Dr. Smith. The anterior wings are clauded, bare and transverse streak pale; a whitish spot with a double black pupil near the apex.

\textbf{ANGUINA, in Natural History, a species of \textit{Sertularia}, called the snake coraline by Ellis. It is delitute of
denticles, and the stem is simple, with elevated oblique branches, each of which has a lateral aperture. \textit{Gmelin, Ellis, \\&c. This kind inhabits the Mediterranean Sea; it is white, soft, and flexible, and adheres to other marine substances.}

\textbf{ANGUINA, in Zoology, a species of \textit{lacerata}, having a
torticated tail which is stiff at the extremity, fringed body, and tubulated feet without toes. This is \textit{vermis fletenci-
iformis} or \textit{Africa} of \textit{Scha}, and \textit{chelotes pinnae} of \textit{Laur}. The head is rather depressed and small, ears transverse, body round and torticated, the scales on each side longitudinally curved; tail twice as long as the body, finely pointed at the end; legs six, anterior ones slender, body covered with tubulated scales. \textit{Gmelin. The general description of this creature does not clearly correspond with those of the authors quoted by Linnaeus and \textit{Gmelin. The figure in \textit{Scha} is about 15 inches in length, of which the body is about four inches; the whole is covered with ovate scales, brown above, with dusky longitudinal stripes, yellowish beneath, and ash coloured on the sides. It is common in muddy places about the Cape of Good Hope.}

\textbf{ANGUINEAL hyperbola. See Hyperbola and \textit{curve.}}

\textbf{ANGUINEI vestis, in Poetry, those which may be read
backwards.}

These are otherwise called recurrent verses. Such, e. g. are,

\begin{quote}
\textit{Optimum jus, lex amica, vox diserta}:
\textit{Diserta vox, amica lex, jus optimum.}
\end{quote}

\textbf{ANGUINUM, ovum, among \textit{Ancient Writers}, denotes
an extraordinary sort of an egg, laid to be produced by the
\textit{joint salvea} of a cluster of snakes interwoven and twisted
together; and when it was found, it was used in the air by
the folding of these serpents; and to be caught in a
clean white cloth before it fell to the ground. The person
who caught it was obliged to mount a swift horse, and to
ride away at full speed to escape from the serpents, who
pursued him with great rage until they were stopped by some
river.

The opinions which the Druids, both of Gaul and Britain,
treated of their anguim, or serpent's egg, both as a charm and a medicine, are in a very high degree romantic
and extravagant. The method of ascertaining the genuine-
ness of this was no less extraordinary. It was to be enc-
chased in gold, and thrown into a river; and if it was gen-
une, it would swim against the stream. "I have seen,"
does Pliny (H. N. xxi. c. 3), "that egg; it is about the
bigness of a moderate apple; its shell is a cartilaginous
incrustation, full of little cavities, such as are on the legs of
the polypus; it is the insignia or badge of diffusion of
the Druids." Among other wonderful virtues ascribed to
this egg, it was represented as particularly efficacious for rendering
those who carried it about with them, superior to their
adversaries in all disputes, and for procuring on their
behalf the favour and friendship of great men. We have the
following account of this egg in the part of a Druid, in Mafon's
"Catacenas":

\begin{quote}
\textit{But tell me yet,}
\end{quote}

\begin{quote}
From the grot of charms and spells,
Where our matron filter dwells,
Brennus, has thy holy hand
Safely brought the Druid wand;
And the potent adder-stone,
Gender'd fore the autumnal moon,
When in undulating twine,
The foaming snakes prolife join;
When they hiss, and when they bear
Their wondrous egg aloof in air;
Then, before to earth it fall,
The Druid in his hollow'd pall
Receives the prize,
And infant flies,
Follow'd by the eaven'md brood,
Till he cross the crystal flood?"
\end{quote}

Some have thought that the serpent's egg was a mere
fraud contrived by the Druids to delude the vulgar, who
purchased these marvelous eggs at a high price. Others
have imagined that the story of the anguim was an em-
blematical representation of the doctrine of the Druids con-
cerning the creation of the world. The serpents, they say,
represent the divine wisdom forming the universe, and
the eggs the emblem of the world formed by that wisdom.
It may be added, that the virtue ascribed to the anguim of
giving those who possessed it a superiority over others, and
endowing them with great men, may perhaps be intended to
represent the natural effects of learning and philosophy.

Our modern Drudges, says Mr. Pennant, have an opin-
on of the virtues of the ovum anguim, "glain osirid," as
the Welsh call it, or the "adder-jump," according to the
modern philosophers, similar, though inferior, to that which
the ancients entertained concerning it: they merely apply
it to affit in cutting children's teeth, to cure shin-cough, or
ANG

to cure an ague. These eggs were, in reality, beads of glass, to which the Druids annexed a charm; and they were of a rich blue colour, either plain or flecked.

ANGUINUS, in Entomology, a species of curculio that inhabits Germany. It is cylindrical, grey, and lined with brown. Gmelin. This insect somewhat resembles curculio paraplecturus, the legs and under side of the body are grey, dotted with black, the back much bent, wing cymes marked longitudinally with a double row of minute excavated points.

ANGULUS, in Zoology, the name of a genus of serpents in the Linnæan arrangement, which is distinguished from the rest by having the belly and under part of the tail covered with scales like those on the other parts of the body. Gmelin. The species, according to Gmelin, are: Meur. Frenetus, meleagris, colubrinus, miliaris, fasciatus, maculatus, resecutatarus, cerales, nautus, lumbareis, laticauda, etc., erys, fragilis, ventralis, platurus, lineatus, claricus, annulatus, feutatus, corallinus, sfusus, hepaticus, and tesselllatus; which see respectively.

ANGULIS, in Natural History, the Linnæan name of a creature in the class amphibia, infected in the twelfth edition of the Syntagma Natura, but referred by Gmelin from the genus Anguis to that of Lacerta. The latter author also refers anguis quadrupes of Linnæus to the same genus. See Lacerta Serrata.

ANGUIS Apalis, a species of Turba figured in Martyn’s Unv. Conch. It is irititd transversely, green flirped with black; purely within. Gmelin.

ANGUIS Fufali, see Coluber.

ANGUIMUM Tapis, a name given to a supposed stone in Germany, which is of a cylindric figure, and has a cavity capable of admitting a finger, and of a yellow colour, with a great many variegations. The vulgar call it duscancek, and have an idle opinion of its having its origin in some manner from a serpent-ant. De Boot, who had seen many of them, declares them to be fictitious, and made of glass tinge with two or three colours. There were probably of the same kind, and used for the same purposes, with the Anguinum ovum.

ANGULAR, something that relates to, or hath angles. Angular objects at a distance appear round; the little inequalities disappearing at a much less distance than the bulk of the body.

ANGULAR MOTION, in Mechanics and Aeronomy, is the motion of a body which describes an angle, or which moves circularly round a point. Thus, a pendulum has an angular motion about its centre of motion; and the planets have an angular motion about the sun. Two movable points M and O (Plate I. Mechanics, fig. 7.), one of which describes the arc MN, and the other, in the same time, the arc OP, have an equal, or the same, angular motion; although the real motion of the point O be much greater than that of the point M; viz., as the arc OP is greater than the arc MN. The angular motions of revolving bodies, as of the planets about the sun, are reciprocally proportional to their periodic times; and they are also as their real or absolute motions directly, and as their ratio of motion inversely.

ANGULAR motion is also a kind of motion composed of a right-lined and circular motion, or in which the moveable body slides and revolves at the same time. Such is the motion of the wheel of a coach, or other vehicle. The phenomena, &c. of such motion, see accounted for under the article Rota Arithmetica.

ANGULAR, acute, fission, see Acute.

ANGULAR, capital, see Capital.

ANGULAR column, see Column.

ANGULAR nicker, see Niche.

ANGULAR, Angulatus, in Botany, denotes a stem, &c. having edges or corners, opposed to cylindrical. A stem may have one, two, three, four, or more angles or corners. The white archangel hath four. The flower-de-luce, or flag, has an angular capitule.

ANGULARIS Statula, in Anatomy, a name given by Wlilow, and some others, to the muscle of the shoulder generally called the levator scapulae.

ANGULATA, in Zoology, a small species of Lacerta, first discovered by Rolander in America. The body is brown above, and covered with carinated scales; those on the belly are smooth; under the throat are two large rounded scales; the head is naked, with various, unequal, elevated wrinkles, which appear truncated at the collar, or behind the head; tail very angular, and half as long again as the body: the specific character of this snake is, tail very long and enormous, with carinated and mucronated scales. Gmelin.

ANGULATA, in Entomology, a species of Hesperia, that inhabits Ceylon. The antennae are fimbriated, body yellow; head, dorso line on the thorax, and waved, margin of the wing-cases black. Fabricius and Gmelin.

ANGULATA, a species of Eunelia, that inhabits Egypt. The wing-cases are spinous, the lateral line elevated and ferrated Fabricius. This is the Terminal of Forsk. and tenorio sulphurus of Pall. This insect is black and without wings, and the wing-cases not divided; the thorax is rough, with three rows of spines, and intermediate rows of tuberculated ones, the lateral line deeply ferrated.

ANGULATA, a species of Cantharida, found in the island of Amherst, South Seas. It is of a teataceous colour, thorax angulated and spinous, end of the wing-cases blue, antennae and legs black. Fabricius.

ANGULATA, a species of Phalaena, of the bombyx tribe. The wings are incumbent, angulated, telataceous-brown colour, with numerous black dots, and two obicute bars of ash colour. Fabricius. This must not be confounded with the Bombyx angulata of Gmelin, No. 475; whose description is taken from bombyx, No. 26, of the species formerly of Fabricius, and should have been written angulata, instead of angulata.

ANGULATA is also a species of Phalaena, of the geometra tribe. The wings are angular and tailed; it is varied with large and small grey breaks, and a black dot near the tail. Fabricius and Gmelin. This is a small insect, and inhabits Africa. Gmelin has also another species of Phalaena, of the geometra tribe, under the name of angulata; the wings are angular and pale. It inhabits Europe. Gmel. 1398.

ANGULATA, a species of Anaea. It is ovoate, front and sides acutely angulated; centre of the thorax excavated. This is an European insect, lives in trees, and spins a perpendicular web.

ANGULATA, in Conchology, a species of Tellina that inhabits the Indian ocean. This shell is somewhat ovoate, and marked with transverse recurved lines, anterior part angulated, and no lateral teeth. Gmelin. This is about an inch and a half in length, and two inches in breadth. It differs from Tellina virgata, which it in some respects resembles, in being less oblong, entirely white, the anterior angle scented more outwardly, and the aperture behind oval. Gmelin.

ANGULATA, a species of Anomia. The sides of the base compressed, anterior part plicated, three teeth in the middle. Gmelin. Found in a fossil flate; this shell is smooth, and varies in the number of plaits on the anterior part.

ANCOULATUS, in Zoology, a species of Coluber, of a brownish colour, with dark or blackish, broad, lancedolate, transverse
transverse bands meeting alternately beneath. The Linnæan
specific character is, scales of the belly one hundred and se-
venteen, and those of the tail seventy. The length of this
make is above two feet, head rather small, and covered with
large scales; the scale of the body disposed in about nine-
ten longitudinal rows, and each scale rather strongly cari-
nated; its specific name is taken from the angular appear-
ance of the body. This kind is a native of Afa.

Dr. Shaw having observed, that the number of abdominal
and subabdominal scales vary considerably in different speci-
mens, has assigned this species a new specific character, Fabriceius,
taking the venit, lanceolatus nigricans, Subims alternans con-

Anvulatus, in Entomology, a species of attelanus,
that inhabits Cayenne. It is furrigenous, wing-cases angu-
lated, black in the disk. Fabricius. Anterntee black, furrig-
inous at the base; thorax furrigenous, with a black spot
at the base.

Anvulatus, a species of carabus, of the apterous
kind. It is black and hairy, thorax guttered, wing-cases
burrowed, with two interrupted yellow stripes. Inhabits
Coromandel. Fabricius.

Anvulatus, a species of gmelinus, that inhabits Ger-
many. It is yellowish, abdomen brown, segments of the
joints obtuse and angular. Fabricius.

Anvulatus, a species of cancus, with two points on
each side of the thorax, fore-claws very long. Gmelin.

Anvulosa, in Conchology, a species of tellina,
that inhabits America. This shell is oval, rather flat, and
transversely striated; one end inflated and angulated; first
tooth of the hinge blunt, lateral ones remote. Gmelin and
Chemitz.

Anvulosa is likewise a species of arca, that inhabits
the shores of the African and American ocean. It is ver-
tricose, longitudinally marked with frizie and fine lines,
and has one side angulated; the beaks are contiguous, hinge
arched. Gmelin. Its general colour is brown, with a few
spots.

Anvulosa is also the specific name of a patella,
figured by Liker and Martin. It is rather oval, white,
thin, striated, and varied with spots and dots of red; margin
obtuse. Gmelin. An orange-coloured shell, with elev-
ated white frizie and dots, bottom yellow, central orange ring
and white margin; figured by Martini; is supposed to be a
variety of this species. Its native country is not ascer-
tained.

Anvulosa, in Natural History, a species of mad produced,
that inhabits the American seas. It is short, thick, cellular,
smooth, and white: the specific character is, dichotomous,
fasaltize, with terminal, turtinated, angular flars; the la-
mella or rills dentated. Pallas and Gmelin.

Anvulosus, in Conchology, a species of echinus.
It is hemispherical, with granulated spines, and double series
of warts, the larger ones divided by serrated lines down the
middle; three series of pores upon the arena. The native
country is unknown; it is of a cinerous grey tinged with
violet. Seba, Klein, Gmelin, &c.

Anvulus, in Natural History, a species of trichoda,
described by Müller, Hist. Vert. It is angular, with a
hairy tip. Gmelin. This kind is found in infusions of hay;
it is long and convex, and is divided by an incision into
two parts, of equal breadth, but differing in length, the
fore part shorter than the hind part, the apex furnished with
short waving hair, indistinguishable molecules within, and
no hair on the posterior part.

Anvulida, in Geography. See Angora.

ANGURIA, a genus of the monoezia diandria
(diandria monogynia, Gmelin), and natural order of eucali-
tuces. Its characters are, that it has male and female flowers;
the calyx of the male is monophyllous, ringed, swelling
at the base, divided lanceolate and fringed; the corolla is
pentapetalous, spreading, growing to the border of the calyx;
the flamina have two laminae, opposite, inserted into the
caiy, anther creeping up and down; the calyx and corolla
of the female as in the male; the filaments of the flamina
as in the male, but to anthus; the pistillum has an inferi
oblong, gyno, female, and figures bicolored: the pec- 
angulatus in pennis, oblong, quadrangular, and bilocular; the
seed is very many, oval, compressed, and shining. There
are three species: 1. A. trifida, with three-lobed leaves;
a native of Cathagena in South America, where it flowers
in June. 2. A. pedata, with leaves pedate and serrate; a
personal plant, climbing trees, by means of long tendrils,
to the height of 20 feet; a native of St. Domingo; flowering
in September, and fruit ripening in December. 3. A. tri-
frusta, with leaves ternate and quite entire; a native of St.
Domingo; differing from the former in having the leaves
quite entire and narrower, and several fruits collected to-
gather.

ANGURIA. See CURCUBITA.

ANGUS, in Geography, a district of the county of For-
far in Scotland, formerly an earldom belonging to the
Dounblades, now extinct.

ANGUSTA, in Entomology, a species of mantis, that
inhabits the island of Antigua. It is greenish, tail bifurcated,
antennae as long as the body, and fulvous. Gmelin.

ANGUSTA, a species of tinctuba, found in Europe.
It is black, the body narrow, and covered with greyish
down. Gmelin.

ANGUSTA, in Conchology, a species of patella. The
shell is depressed, white, with elevated frizzles, of which every
fourth is larger than the rest; aperture very narrow, with a
chelate coloured band on the outside, and a green belt
within. Gmelin. This is about three quarters of an inch
in length.

ANGUSTATA, in Entomology, a species of casina,
found in India. It is yellowish, posterior part of the wing-
cases narrow. Gmelin.

ANGUSTATA, a species of pinella, that inhabits the
southern parts of Russia and Egypt. It is glossy, posterior
part of the thorax narrow, wing-cases pointed at the end.
Gmelin. This creature lives in the dry dung of animals,
under stones, &c. and is supposed to be the tenebrio longi-
cornis of Pallas.

ANGUSTATA, in Conchology, a species of lapes,
figured by Donnini. The shell is elongated, funnel-shaped, of six valves,
the aperture narrow, and operculum small. Gmelin. It is
grooved where the valves unite, and is sometimes frizited
with red and white.

ANGUSTATA, a species of cypriia. It is narrow, and
of a brown colour, with reddish spots. Gmelin and
Gutschi.

ANGUSTATUS, in Entomology, a species of cur-
cula, sometines, though rarely found in England. It is
cylindrical and black, wing-cases oblique and punctated.
Fabricius.

ANGUSTATUS, a species of cryptocephalus in Gme-
lin's arrangement, and cistella of Fabricius; the thorax
and wing-cases are of an obscure reddish brown, and black in
the middle. Fab. Inhabits England.

ANGUSTATUS, a species of carabus, that inhabits Ger-
many. The thorax is cylindrical and bine, wing-cases telfa-
ceous, black at the tips. Fabricius.

ANGUSTATUS, a species of cimex, with oblong body,
and filiform antennae; it is black, with an elongated head and thorax. Gmelin and Thumb.

ANGUSTIA, in Ancient Geography, a town of Europe in Dacia, according to Ptolemy.

ANGUSTICLAVIA, or ANGUSTUS CLAVUS, in Antiquity, a tunic, embroidered with little purple flowers, or flowers, worn by the Roman knights, inferior magistrates, and some officers of the army.

The word is compounded of angustus, fisful, and clavus, fish, because those ornaments were smaller in this garment than in the laticlava which was worn by the femaile.

ANGUSTIFOLIUS, in Botany, denotes narrow-leaved.

ANGUSTURA Bark, in the Materia Medica, a species of bark imported here in convex pieces, about an inch and an half or less in breadth, and about six inches long. It is hard and compact, of a yellowish brown colour, and covered with a whitish, uneven epidermis. In powder it has the yellow appearance of rhubarb; its taste is bitterish and aromatic; its colour, when recent, is said to be not ungrateful. An ounce of this bark yields, by means of alcohol, about two drachms of a red wine, bitter extract; and from the same quantity, nearly three drachms and a half of a gummy extract may be obtained by water. This drug, according to some, should be called Aungstula, from St. Augustine, in East Florida; but it is more properly named Aungstula, from a place of this name in South America, whence it was brought by the Spaniards to the island of Trinidad.

The tree which produces it is not acertained. Some suppose it to be Magnolia glauca; but it has been thought, with greater probability, to be the bark of the Brucea antidysenterica, or Brucea ferruginea of L’Heritier and Aiton; for the description of the bark of this tree given by Mr. Bruce agrees very well with the cortex angustula; and this opinion is confirmed by the bark of a living plant of this species growing in the royal garden at Kew.

This bark has been successfully used during the 12 years from 1785, in which it has been known as a medicine in this country, under the characters of a febrifuge, tonic, and allirgent. In intermittent ails it has been found no less effectual than Peruvian bark, and generally more acceptable to the stomach; and in cases of diarrhoea, dyspepsia, febrifuge, and great debility, it has been found to be a useful remedy. The doses in which Dr. Brandi has exhibited this remedy have been, of the powder as much as 20 grains every three hours, but generally less.

The infusion is made with half an ounce of the bruised bark to a pint of boiling water; the decoction of the same strength; the dose, one ounce to an ounce and a half. Of the tincture, prepared with one ounce of bark to 15 of proof spirit, the dose is about one drachm. Woodville’s Med. Bot. vol iv. p. 162. Murray’s Mat. Med. vol vi. p. 172—177. Brandi’s Exp. and Obf. on the Angustura bark, 1791.

ANGUSTUS, in Entomology, a species of Cixiæ, which inhabits China. It is greyish above, beneath yellowish; antennæ and legs tellyaceous brown. Fabrinius.

ANGUSTUS, in Cymatologia, a species of Muræ. This shell is narrow, the first whorl of the spire pleated longitudinally, and ribbed transversely, the rest smooth and round, beak ribbed transversely. Gmelin.

ANHALDIN, anhaladinum, an epithet given to various medicines, formerly kept as secrets in the family of Anhalt. Three of the most celebrated medicines under this denomination are a corrosive, a water, and a spirit.

The corrosive, as described by Burggrave, is compounded of calcined antimony, sublimate mercury, sal ammonica, and calcined tarter, distilled and rectified. The Anhaltin water, or rather spirit, is a farrago of several aromatics, balsamics, and turpentine distilled with spirit of wine. It is nauseous to the palate; but has been applied externally in the, belly, fumigations, vomiting, and gripes. Murray, Mat. Med. vol i. p. 96.

ANHALT, in Geography, a principality of Germany, in the circle of Upper Saxony, terminating to the north-east on the marlhe of Brandenburg, to the east on the elec- torate of Saxony, to the south on the margravate of Mif- fen, to the south west on the county of Mansfield, to the north-west on the duky of Brunswick, and to the north on the principality of Halberstadt and the duky of Magde- burg, and extending about 90 miles from east to west, and in its greatest breadth about 35 miles. The land produces corn and hops, and various kinds of fruits. The rivers, which are the Elbe, the Mulde, the Saale, the Wipper, the Seine, the Bode, the Tutine, the Zitau, the Nuke, and the Kofzka, yield excellent fish. The mines afford lead, copper, silver, iron, coal, sulphur, vitriol, alum, salpetre, and other minerals; and the principal article of trade is beer.

The air is healthy, though cold. In this principality are 19 towns and two boroughs, and the number of inhabitants is about 100,000. Christians were introduced into Anhalt in the ninth century; and the reformation took place in 1527. Until 1596, the whole country professed Lutheranism; but at that time Calvinism was introduced. This principality derives its name from the castle of Anhalt; and the princes of Anhalt are descended from the Aecians. Some of the bell genealogists derive their origin from Berenthobaldus, who made war upon the Thuringians in the sixth century; and in the German history the princes of this family make a conspicuous figure. Joachim Ernart II. was the founder of all the present princes of Anhalt. He died in 1586; and five of his sons shared their father’s territories. To the eldest of the family they all agreed to submit; and with him, to whom belonged Anhalt-Dessau, was vested the supreme government. The other four are Anhalt-Bernburg, Anhalt-Schaumburg, Anhalt-Cotten, and Anhalt-Zerbst. Each of the reigning lines has its regency, exchequer, and consistory. The annual produce of the whole principality of Anhalt is estimated at between 5 and 600,000 rix dollars.

ANHELITUS, formed of the verb ambelo, I breathe with difficulty, signifies a thoroughness and thickness of breath, as in an asthma. See Respiration.

ANHIMA, in Ornithology, a name given by Maregraves, Willughby, Ray, and other old writers, to the Palamedea cornuta of Linnaeus. See Cornuta Palamedea.

ANHINGA, a species of FLOtuS, having a smooth head, and white belly. Gmelin. This is the anhinga of Maregrave, Drilon, Ray, and others; and white belled darter of Latham.

This species is scarcely so big as a mallard in the body, but its length from the tip of the bill to the end of the tail is not less than two feet ten inches; the bill is three inches long, straight, pointed, and jagged at the edges; the colour greyish; yellowish at the base; head small; neck very long and slender; and covered with downy feathers of a rufous greyish colour; upper part of the back and scapulars dusky or blackish, the middle of each feather dabbled with white; lower part of the back, rump, and upper tail coverts black; belly pure silver white; tail of twelve large black feathers, legs and toes yellowish grey.

It inhabits Brazil, and feeds on fish, which it is said to catch with much cunning and dexterity, first drawing up its neck like a serpent, and then darting its bill upon its prey. Like the corvordant, this bird builds the nest upon trees, generally those which grow by the sides of rivers. When at telb
red; it frequently fits with the head drawn in between the shoulders, like the horn. It is for the most part very fat, but the fish has an oily, rank, and disagreeable smell.

Anikaga, or Ornithology, has been described in the laws of William the Conqueror; and their use is, that every one should pay, according to the custom of the country, his part and share, as feet and lat., see Leg. W. I. cap. 64.

AHNOLT, in Geography, a legation of Wellplasia, lies between the bighorn of Minster, the duchy of Cleve, and the county of Zutphen. When the ancient lords of Ahnolt became extinct, towards the close of the 12th or beginning of the 13th century, a female heir of this house transferred it to her co-heiress John of Bronkhorst. The two sons divided the paternal and maternal estates, and thus Count Theodoric obtained the sovereignty of Ahnolt. In 1641, he gave this fiefdom to his daughter, who was married to Leopold Philip Charles, Prince of Salm, whose house, on account of this fiefdom, enjoys both seat and voice in the Wellplasian college of the counts of the empire, and also at the diets of the circle of Wellplasia. The province of Guelders, in the Low Country, new appropriates to itself the fiefdom over this legation. The chief place in it is Ahnolt, a small town and chateau lying in the Old Vifci. N. lat. 51° 54', E. long. 6° 7'.

Ahnolt, an island of Denmark, in North Jutland, situate in the Cattegat, eight miles from the coast of Jutland on the west, ten from Zealand on the south, and seven from Smaland on the east. It is surrounded with sandbanks, and, therefore, dangerous to seamen, but a fire is constantly kept up in a light-house upon it. On each side of it is a channel, as ships may be sailing for Copenhagen on the east or on the west side of Zealand. Professor Bogge observes, that in all the charts and maps of the Cattegat, the position of Ahnolt is very erroneous. The light-house and the whole island are from seven to nine minutes too much westerly; and the distance from the light-house to the Swedish coast, in a direction perpendicular to the meridian of the light-house, is, in all maps hitherto published, nearly four English miles, or one-eighth part of the whole, too great. Experience has taught the navigators that they come too soon down upon Ahnolt; or that, on cruising between Ahnolt and Sweden, they over-run their reckoning, which was ascribed to the currents; whereas, the true reason was the great error in the geographical and hydrographical position of Ahnolt in a narrow and dangerous passage. The light-house is in N. lat. 56° 44' 26", E. long. 11° 39' 51". Phil. Trans. vol. lxxxiv. p. 460.

ANHUIBA, in Botany, a name by which some authors call the sassafras tree, the wood of which is so much used in medicine.

ANHYDROS, a name given by the ancient Greeks, and from them copied by the Romans in the time of Pliny, to express one of those kinds of the strachna, or night-shades, which, when taken internally, cause madness.

ANI, in Entomology, a species of crotophaga, in the Linnean and Gmelinian arrangement, and very briefly described as Ctr. minor pedibus scanforisis (small feet-climbers). This character is, perhaps, insufficient to distinguish it from another species of the same genus described by Gmelin, as Ctr. major pedibus scanforisis, without attending to the characters admitted by other authors; both are of a blackish violet colour, and have the edges of the feathers glistened with green, but in the former the green has a coppery aspect; the bill of this is also shorter in proportion, and rises higher at the top, and its usual length is thirteen inches and an half, which is about four inches and an half less than that of C. ma-

por. Some authors have been disposed to consider them as the two sexes of the same species, or mere varieties; but both sexes of each seem to be well authenticated, and Dr. Latham says he is assured they are distinct species, and never mix together.

This is the Brazilian bird, called by Marcarevic in his History of Brazil, Ani; and Histacqconsinger Ani, by Ray and Willughby. It is not, however, peculiar to this part of South America, being also found in Guinea. It is Moni-

dula tota migrator garrula, mandibula fasiplora arcaetae of Slone, Jamaica; and is likewise described as a Well Indian bird by Brown. Cateley calls it the razor-billed blackbird; Buffon, and des Savi anes, and in the Ph. enl. Petit, Bout-de-Petun. Crotophages by Brinon, and it is supposed the Cacalotot of Ray is the same bird.

Contrary to all other birds, the Crotophaga Ani, says Dr. Latham, "have the singularity of many lying in the same nest, to make which they all unite in concert; and, after laying their eggs, sit on them close to each other, in order to hatch them, each unaniously striving to do the best for the general good; and when the young are hatched, the parents, without reserve, do the best to feed the whole flock. A still greater singularity occurs, which is, that as soon as each female lays her egg, she covers them with leaves, doing the same thing whenever she is obliged to leave the nest for food: this might be necessary in a cold climate; but why it should be wanted in a hot one, I have not clear, especially as it has not been observed in other birds. It generally has two broods in a year, except accidents happen; in which case it has been known to make three nests. The eggs are about the size of those of a pigeon, of a sea-green colour, spotted at the ends."

"Their food is various; worms, insects, fruits, and grain, according to the season. They have the same manners as the greater ani, C. major, and are continually gregarious, from ten to thirty in a flock, whether it be in breeding time or not. They are not difficult to be shot, not being so wild as many other birds; but are known to chatter much on the flight of a man, though they do not fly to a great distance; hence they are not well relished by sportsmen; as, like jays in England, they are the object of taking up during his sport in respect to other game, without making him amends in their own flesh, which is never sought after for food, being rank and unpalatable." Thes Gen. Syn. tom. i. p. 362.

Ani, a name adopted by Dr. Latham in his arrangement, Gen. Syn. for the Linnean genus crotophaga: thus the species C. ani is called the lesser ani, C. major, greater ani, C. ambulatoria, walking ani; and, no doubt, the newly-discovered species described as C. varia, rufo nigroque varia, in Ind. Orn. of the same author, would have been called the variegated ani, had any English name been affixed to it.

Ani, a name given by some early writers on natural history to the uupfa mexicana of Linnaeus, and Mexican pomerots of Latham. Ani mexicana cauda longissima. Seba, &c.

Ani, or Anikaga, in Geography, a town of Greater Armenia, in Asia, in the government of Kers, and under the beglerbeg of Erzerum. Its walls are watered by a river, which descends with rapidity from the mountains of Mingrelia. It was formerly known under the name of Am; and was so considerable and so strong, that the ancient kings of Armenia deposited their treasure in its castle.

Anian Straits, lie between the north-east extremity of Asia, and the north-west point of the continent of America. The west point of this strait is N. lat. 65° 52', and W. long. 160° 20', and the east point, called Cape Prince of Wales, in N. lat. 65° 49', and W. long. 168° 15'; and its breadth is about 14 leagues. See Beering's Straits.

Anian
ANIAN is also a barren, sandy desert, which is excessively hot, and inhospitable, on the east coast of Africa; frequented only by wandering Arabs, who live in camps. It lies upon or near the Eastern Ocean and the Red Sea. See ALEX.

ANIAN-TU or ANIEN, a town of China, in the province of Chuenan.

ANIANA, in Ancient Geography, a town placed by Ptolemy in Mesopotamia.

ANIANE, in Geography, a town of France, in the department of the Herault, and chief place of a canton in the district of Lodève, 25 miles south-north of Montpellier, N. lat. 45° 47', E. long. 3° 29'.

ANIR, a town of Alia in Syria, between Aleppo and Alexandria.

ANIBA, in Botany. See CERODATA.

ANICETUS, Pope, in Biography, a Syrian by birth, succeeded Pope Pius, according to Eusebius, in the year 1577; but, according to other writers, at a somewhat earlier period. In his time, the Gnostic doctrines of Valentine and Marcion prevailed at Rome; but many of the persons who adopted them were reclaimed by Polycarp, who came from Smyrna to Rome, in order to settle the controversy about the celebration of Easter. Anicetus differed with him on this point; and after a conference, each retained his own opinion, whilst both of them manifested mutual forbearance and charity. In token of their amity they communicated together at the eucharist; and Anicetus testified his respect for Polycarp, by yielding to him the honour of performing the service on the occasion. Happy would it have been for the Christian church, if the successors of Anicetus had manifested a similar disposition. Several ordinances and decrees are ascribed to this pope by modern writers, but their authority is doubtful, and therefore they are not worthy of notice.

After having governed the church 11 years, he died, as some have said, a martyr; but of this there is no sufficient evidence. The letters ascribed to him are frivolous. Euseb. Eccl. Hist. lib. iv. c. 11. 14. 22. Dupin. Bower.

ANICH, Peter, a mathematician, mechanic, and alchemist, was born of obscure parentage at Oberperzuff, near Infruck, in 1723; and discovered an early taste for the sciences of astronomy and geometry, which Father Hill, a Jesuit, and professor in the university of Infruck, afforded him an opportunity of cultivating. In a short time he was distinguished by his knowledge both of astronomy and mechanics. He made a very curious pair of globes for the university of Infruck, and constructed many mathematical instruments of his own invention. He also delineated maps with neatness and accuracy. He died much regretted in 1766; and the empress queen testified her respect for his memory, by setting upon his table a pension of 50 florins. Nouv. Dict. Hist.

ANICULA, in Conchology, a name given by Rumphius to a species of conus, called by Linnaeus and later authors, CONUS MONACHUS; which see.

ANICULUS, in Entomology, a species of cancer, having an ovate thorax, ciliated at the sides, and rugid, hairy legs. Fabricius. This creature inhabits the southern ocean, and is the largest of the family PARAFITIS. The rostrum is biform, teeth elongated and acute; the eyes cylindrical and procurred; thorax smooth, tail soft, claws and legs rugged, with hairy tufts.

ANJENGO, in Geography, a small town and factory, with a fort, on the coast of Malabar, belonging to the East India company. The chief trade of this settlement is pepper, and rupees are the current money. N. lat. 8° 39'. E. long. 76° 40'. Vol. II.

ANIERES, a town of France, one league north-west from Paris.

ANIGRUS, in Ancient Geography, a river of Triphylia, in the territory of Elis, to the north of Lepreum. Its course was in Leptis, a mountain of Arcadia; the inhabitants of which thought that it was the same with the Minyas of the ancients, mentioned by Homer. Near this river was a cavern, called the cave of the nymphs Anigrus, or Anigerus, mentioned by Strabo and Paulainus; and it was pretended that any persons who had a complaint of the skin might be cured, if, after having sacrificed to the nymphs, they swam over the Anigrus.

ANIKAN, or INGIERFRAN, a town of Africa, on the Gold Coast, where the English and Portuguese have both a factory and a fort.

ANILL, in Botany. See INDIGOPELL.

ANILLIS, in Entomology, a species of Musca, in the Linnaean system, and Row in that of Fabricius. It is a whitish grey, with transparent whitish wings, and is found in Europe. Gmelin.

ANILLE, in Heraldry, a mill-rind, or, as the French term it, a fer de moline.

ANIM, in Ancient Geography, a town of Palestine, situated in the mountains of the tribe of Juda, according to the book of Joshua.

ANIMA, a soul; whether rational, sensitive, or vegetative.

The world is pure Latin, formed of respirare, to breathe. Anima is sometimes used by physicians to denote the principle of life in the body.

In which sense Willis calls the blood anima brutalis. Anima is also figuratively used by chemists for the volatile principles in bodies, whereby they are capable of being raised by the fire.

In which sense we meet with anima sapidis, the soul of the supr. &c. Phil. Trans. N° 72. p. 2233. Anima is more particularly applied to simple medicines, artfully exalted by distillation and extraction, to a high degree of power.

In which sense we meet with anima alciata, anima Rhodochorini, anima semenis, &c.

Sometimes also it denotes medicines which are particularly salutary to particular parts of the body. Thus we meet with Anima articulorum, which is a denomination sometimes given to hermodactyls, on account of their efficacy in disorders of the joints.

Anima leukos, soul of the liver, a term applied by the chemists to the fæt maris, fæt of iron or steel; on account of its utility in diluting the other parts.

It is more usually preferred under the name of vitriolum maris.

Anima palmonum, used for crucis, or saffron, by reason of its supposed great use in diseases of the lungs.

Anima mundi, qu. d. soul of the world, or of the universe, denotes a certain pure ethereal substance or spirit, diffused, according to many of the ancient philosophers, through the parts of the world, informing, actuating, and uniting the diverse parts thereof into one great, perfect, original, and vital body or animal. See PLASTIC Nature.

Plato treats at large of the soul, in his Timaeus; and even supposes a soul to be the author of the dogma; yet interpreters are much at a loss about its meaning. Aristotle, however, taking it in the common and obvious sense, freed it, without oppressing it.

The modern Platonists explain their master's anima mundi by...
b a certain universal ethereal spirit, which in the heavens exists perfectly pure, retaining its proper nature; but on earth, pervading elementary bodies, and intimately mixing with all the minute atoms thereof, it assumes somewhat of their nature, and becomes of a peculiar kind. So the poet:

"Spiritus intus alti, totiusque infusa per artus.
Mens agitat molem, & magno fe corpore nuceft."

They add, that this anima mundi, which more immediately resides in the celestial regions as its proper seat, moves and governs the heavens in such manner, that the heavens themselves first received their existence from the fecundity of the same spirit: for that this anima, being the primary source of life, every where breathed a spirit like itself, by virtue whereof various kinds of things were formed conformable to the divine ideas.

The notion of an anima mundi is rejected by most of the modern philosophers, though M. du Hamel thinks without any great reason, since the generality of them admit something very much like it. Thus the Peripatetics have recourse to celestial influaxes, in order to account for the origin of forms, and the secret powers of bodies.

The Cartesians have their subtle matter, which answers to most of the uses and intentions of Plato's anima mundi; being suppos'd to flow from the sun, and the other heavenly bodies, and to be diffus'd through all the parts of the world, to be the source or principle of all motion, &c.

Some later philosophers, in the place of these sublimate fire; and others a subtle elastic spirit, or medium, diffus'd through all parts of space.

The principal thing objected to, on the Christian scheme, against Plato's doctrine of the anima mundi, is, that it mingles the Deity too much with the creatures; confounds, in some measure, the workman with his work, making this, as it were, a part of that, and the several portions of the universe so many parts of the godhead. Yet is the same principle affected by Seneca, Epist. 92. \textit{Tutum hoc quo continuatur, \& unum est, \& Deus. \ Et facili ejus funtus, \& membri---}

\textit{Anima gemmara,} a term used by Becher and some others, to express that principle, to which the gems, and other beautiful stones owe their colours.

This anima lapidum is no more than the metallic sulphur to which these stones and gems, naturally coloured, owe their tinges; and, like other metallic sulphurs, it may be raised and evaporated by fire. Becher, Phyf. Subt.

\textit{Anima saturni,} the soul of lead, a preparation of lead, serving to many purposes in the enamel work. The method of making it is this: put litharge, powdered fine, into a glazed earthen vessel, and pour distilled vinegar upon it to the height of four fingers; let it stand till the vinegar is of a white or milky hue; pour off this coloured vinegar and put on fresh, and so do till the vinegar will no longer be coloured by the litharge; then set these liquors together in open glazed earthen vessels, that the white powder may subside, and the vinegar be poured off clear. This white subtilitate is the anima saturni. Sometimes this white matter will not precipitate without the addition of water; and sometimes it is necessary to evaporate the liquors, but by that means it is always prepared. Nerit's Art of Glais, p. 184.

\textit{ANIMACHA, or ANIMACA,} in Geography, a river of India, in Malabar, which rises in Calicut, and discharges itself into the sea, in the vicinity of Cranganor.

\textit{ANIMADVERSION,} formed of animus, the mind, and advertio, I turn to, sometimes signifies correction, and sometimes remarks or observations made on a book, &c. and sometimes a serious consideration and reflection on any subject, by the rules of criticism.

\textit{ANIMAL,} in Natural History, an organized and living body, endowed with the powers of sensation, and of spontaneous loco-motion. The word is derived from anima, soul, and literally denotes something that is Animated. Boerhaave defines an animal to be an organic body, consisting of vessels and juices, and taking in nutrition by a part called the mouth; whence it is conveyed into another called the intestines, into which it has roots implanted, whereby it draws in its nourishment after the manner of plants. The imperfection of this definition is obvious, not merely as it excludes the sentient principle, but because it distinguishes the animal by the instruments or means of its nutrition, which it pollicels in common with vegetables, and which, notwithstanding some variation in their form and structure, are not sufficient to constitute an essential distinction. Dr. Tyson fixes the criterion of an animal in the \textit{"tactus alimentalis"}, \textit{i.e.} a gula, lobum, and intestines, all which make one continued canal; but this definition is liable to the same objection with that of Boerhaave. Some, as Klein and others, have defined animals, from their loco-motion, as being capable of shifting from place to place, whereas plants adhere to the same subject. This property they esteem as the great characteristic by which animals may be distinguished from the other orders of beings. On this principle, however, oysters, muscles, cockles, &c. would be almost excluded from the class of animals, insomuch as they usually adhere, or grow to rocks, &c. and yet it is certain that these creatures are real animals. But loco-motion alone is not sufficient to constitute the generic difference of animals; nor indeed does it sufficiently distinguish an animal from a plant. Many instances are produced, in which plants manifest loco-motive power. This is the case with those denominated fermentive plants, many of which, upon the slightest touch, shrink back, and fold up their leaves; as the final, on the slightest touch, retires into its shell. There are some, on which if a fly perchers, instantly close and crush the insect to death. Plants also change their position and form in different circumstances and seasons; they take advantage of good weather, and guard themselves against bad weather; they open their leaves and flowers in the day, and close them at night; some close before sun-set, and some after; some open to receive rain, and some close to avoid it; some follow the sun, and some turn from it; the leaves of some plants are in constant motion during the day, and at night they sink to a kind of rest or sleep. It has also been observed that a plant has a power of directing its roots for procuring food; and that it has a faculty of recovering its natural position after it has been forced from it. A hop-plant, for instance, in twining round a pole, directs its course from south to west, as the sun does; if it be tied in the opposite direction, it dies; but if it be left loosed in this direction, it will regain its natural course in a single night. A honey-fuckler proceeds in a certain direction till it be too long to sustain itself; it then acquires strength by fluttering into a spiral form; and if it meet with another plant of the same kind, both thece coalesce for mutual support, one twirling to the right and the other to the left. Lord Kames mentions many other instances in which plants manifest a faculty of loco-motion; and, perhaps, in almost as eminent a degree as some animals. Muffles, \textit{e.g.} are fixed to one place as much as plants, nor have they any power of motion, besides that of opening and fluttering their shells; nor do they, even, in this respect, have any imperfection, with regard to the powers of motion, to the sensitive plant and others of a similar kind.
In order, therefore, to form a complete and satisfactory
distinction between animals and vegetables, as well as minerals,
it is necessary to combine with spontaneous locomotion,
which they unquestionably possess in a more perfect
degree than plants, the powers of sensation. These seem to be an
exceptionably distinguishing and characteristic. However,
M. Baffon (Nat. Hist. by Smellie, vol. ii. p. 6.) after allowing
that, although progressive motion constitute a percep-
tible difference between an animal and a vegetable, this
distinction is neither general nor essential; proceeds to
state, that sensation more essentially distinguishes animals
from vegetables. But he adds, that this distinction is neither
sufficiently general nor decided. If sensation, he says, im-
plicated no more than motion consequent upon a stroke or im-
pulse, the sensitive plant enjoys this power; whereas, if
by sensation we mean the faculty of perceiving, and of
comparing ideas, it is uncertain whether brute animals are
endowed with this faculty. If it should be allowed to dogs,
elephants, &c. whose actions seem to proceed from motives
similar to those by which men are actuated, it must be de-
med to many species of animals, particularly to those that
appear not to possess the faculty of progressive motion.
If the sensation of an oyler, e.g. differ in degree only from
that of a dog, why do we not ascribe the same sensation to
vegetables, though in a degree still inferior? In examining
the distinction which arises from the manner of feeding, he
observes, that animals have organs of apprehension, by which
they lay hold of their food; they search for pasture, and have
a choice in their aliment. But it is alleged, that plants
are under the necessity of receiving such nourishment as the
soil affords them, without exercising any choice in the species
of their food, or, in the manner of acquiring it. However,
if we attend to the organization and action of the roots and
leaves, we shall soon be convinced, that these are the external
organs by which vegetables are enabled to extract their food;
that the roots turn aside from a vein of bad earth, or from
any obstacle to which they meet with, in search of a better
soil; and that they split and separate their fibres in different
directions, and even change their form, in order to procure
nourishment to the plant. Irom this investigation he con-
cludes, that there is no absolute and essential distinction be-
tween the animal and vegetable kingdoms; but that Nature
proceeds by imperceptible degrees from the most perfect
to the moft imperfect animal, and from that to the vegetable;
and that the fresh-water polypus may be regarded as the leaf
of animals and the first of plants. After examining the distinc-
tions, this author proceeds to state the refemblances which
take place between animals and vegetables. The power of
reproduction, he says, is common to the two kingdoms, and
is an analog both universal and essential. A second refem-
blance may be derived from the expansion of their parts,
which is likewise a common property, for vegetables grow
as well as animals; and though some difference in the man-
er of expansion may be remarked, it is neither general nor
essential. A third resemblance results from the manner of
their propagation. Some animals are propagated in the
same manner, and by the same means, as vegetables. The
multiplication of the lacerion, or viviparous, which is effected
without copulation, is similar to that of plants by seed; and
the multiplication of the polypus by cuttings, resembies that
of plants by slips. Hence it is inferred, that animals and
vegetables are beings of the same order, and that Nature
distinguishes from the one to the other by imperceptible degrees;
since the properties in which they are confined to another are
universal and essential, while those by which they are distin-
guished are limited and partial. Dr. Watson, bishop of
Llandaff, has examined, with his usual judgment, the distin-
guishing marks between animals and vegetables. See Eff. iii.
in the fifth volume of his Chemical Essays, 12mo. 1787.
He rejects, as insufficient, both figure and spontaneous motion;
and if perception be sublimated in their stead, it will be
found to be a criterion that is in many respects liable to excep-
tions. However, the ingenious and learned prelate produces
many chemical, physical, and metaphysical reasons, which
serve to render the supposition not altogether indefensible,
that vegetables are endowed with the faculty of perception.
Dr. Percival, likewise, in a paper read before the Literary
and Philosophical Society of Manchester, produces several
arguments to evince the perceptive power of vegetables.
From the reasoning adduced by both these ingenious writers,
of which a more particular account will be given in the
sequel of this work (see Plants and Vegetables), those
who daily advert to it, will, we conceive, incline to the op-
inion, that plants are not altogether destitute of perception.
But on a question that has perplexed and divided the most
ingenious and inquisitive naturalists, it is very difficult to
decide. If we extend to the vegetable kingdom that kind of
vitality with which sensation and enjoyment are connected,
there will remain no discernible boundary between this and
the animal kingdom; and that which has been considered as
the distinctive characteristic of animals, and by which they
are separated from vegetables, will be abolished For a dif-
cussion of this question more in detail, see Brute, Instinct,
Physiogy of Plants, and particularly the article Sensa-
tion. Before we clofe this article, we shall add, that the
principle of self-preservation belongs to all animals; and it
has been argued, that this principle is the true characteris-
tic of animal life, and that it is unquestionably a consequence
of sensation. There is no animal, when apprehensivc of dan-
ger, that does not put itself into a posture of defence. A
mucleus, when it is touched, immediately shuts its shell; and
as this action puts it into a state of defence, it is ascribed to
a principle of self-preservation. Those who adopt this rea-
oning, allege, that vegetables do not manifest this prin-
ciple. When the sensitive plant, for instance, contracts from
a touch, it is no more in a state of defence than before;
for whatever would have destroyed it in its contracted state,
will also destroy it in its contracted state. They add, that the
motion of the sensitive plant proceeds only from a certa-
in property called irritability; and which, though pos-
sessed by our bodies in an eminent degree, is a charac-
teristic neither of animal nor vegetable life, but belongs to
us in common with brute-matter. The sensitive plant, after
it has contracted, will suffer itself to be cut in pieces, with-
out making the least effort to escape. This is not the case
with the meander animal. An hedge-hog, when alarmed,
draws its body together, and expands its prickles, thus put-
ing itself in a posture of defence. When thrown into the
water, the same principle of self-preservation prompts it
to expand its body and swim. A snail, when touched,
withdraws itself into its shell; but if a little quick-lime be
sprinkled upon it, so that its shell is no longer a place of
safety, it is thrown into agonies, and endeavours to avail
itself of its loco-motive power, in order to escape the dan-
ger. Mucleus and oysters also, though they have not the
power of progressive motion, constantly use the means which
Nature has given them for self-preservation.
We ourselves possess both the animal and vegetable life,
and ought to know whether there be any connection be-
 tween vegetation and sensation, or not. We are conscious
that we exist, that we hear, see, &c. but of our vegetation
we are absolutely unconscious. We feel a pleasure in gra-
tifying the demands of hunger and thirst; but we are totally
ignorant of the proeess by which our aliment is formed into

chyle,
elites, the elyle mixed with the blood, the ceration of
that fluid, and the separation of all the humours from it. If
we then, who are more perfect than other vegetables, are
utterly infirm of our own vegetable life, why should we
imagine that the less perfect vegetables are feasible of it? We
have within ourselves a demonstration that vegetable life acts
without knowing what it does; and if vegetables are guar-
rant of their most vigorous actions, why should we suppose
that they have any vegetation of their interior ones; such as
contracting from a touch, turning towards the sun, or
advancing to a price? As to that power of irritability which is
observed in some plants, our foliis have it when
deprived both of animal and vegetable life; for a muscle cut
out of a living body will continue to contract, if it be irri-
tated by pricking, after it has neither sensation nor vegeta-
tion. The following moral reason has also been suggested
against believing vegetables to be endowed with vegetation: if
this were the case, they would suffer pain when they were
cut or destroyed, and then would be very unhappy if
they had not the least power to avoid the injuries duly of-
fered them. Accordingly it is maintained, that the good-
ness of the Deity is conspicuous in not giving to vegetables
the same sensations as to animals; and as they have no means
of defence, we may conclude from this circumstance, that
they were granted as food to animals. Encyc. Brit. On
the other hand, those who are of opinion that plants possess
powers of perception, allege that their hypothesis recom-
mands itself by its consonance to those higher analogies of
nature, which lead us to conclude, that the greatest possible
form of happiness exists in the universe. The bottom of the
ocean is overpeopled with plants of the most luxuriant magni-
tude; and immense regions of the earth are overpeopled
with perennial forests. Nor are the Alps, or the Andes, de-
stitute of herbage, though buried in depths of snow: and can
it be imagined that such profusion of life subsists without
the least sensation or enjoyment? Let us rather, with
humble reverence, suppose, that vegetables participate, in
some low degree, of the common allotment of vitality;
and that one great Creator hath appointed good to all
living things, "in number, weight, and measure." Percival,
ubi supra.

For an account of the various systems that have been
adopted in the distribution of animals, see Zoology. See also
Mammalia, Birds, Amphibia, Fishes, Insects, and Worms. For other particulars relating to their num-
ber, analogous structure, sagacity, instinct, &c. see Compa-
rative Anatomy, with the articles referred to under that
head, Brute, Generation, Instinct, Migration, Oviperous, Viviparous, &c. &c.

Animals make the principal figures in Heraldry, both
as bearings and as supporters, &c.

Animal is also used adjectively to denote something
that belongs to, or partakes of, the nature of an animal body.
Thus we say animal food, animal economy, &c.

Morals frequently oppose the animal part, which is the
feable, fleasy part of a man, to the rational part, which is
the understanding.

Animal actions are those peculiar to animals, or which
belong to animals as such:
Such are sensation and muscular motion.

Animal earth. See Earth.

Animal flower, a name indiscriminately applied to a
variety of different creatures in the Vermes tribe, that bear
some resemblance to a flower; and is synonymous with sea
anemone, urtica marina, or sea-nettle, &c. Their, for the
most part, belong to the molusca order in the Linnaean sys-
tem, as the actiniae, and holothurias; yet the name is given
to be tubulariae and hydrea, which belong to an entirely dif-
ferent order, the ephydri of Linnaeus. See Actinia,
Anemone, (sea,) Holothuria, Turulaia, and Hy-
dra.

Animal familiar, among Physicists. See Function.

Animal glue. See Glue.

Animal gods, dii animalis, in Mythology, those into
which human souls are converted by means of certain reli-
gious ceremonies.

Labeo has written expressly on the animal gods.


Animal hunger. See Hunger.

Animal report. The common opinion is, that all the
animal liquors, excepting chyle and milk, are of an acru-
slent nature; but M. Quefay, in his book Sur l'Oeconomie
Animale, affirms, that our gelatious liquors contain a
very acent heat, capable of raising a heat of two hundred
degrees. The proof of which, says he, offers itself daily to
every one: who is it that has not remarked, that broth
made with flesh, well freed from fat, when corrupted, be-
comes as sour as vinegar? The foundation on which M.
Quefay builds his doctrine concerning animal liquors, is
the separation of milk into its oily, cherty, and watery sub-

Animal magnetism. See Magnetism.

Animal manures, in Agriculture, are all such as are
formed from the decomposition of animal substanccs of
any kind, as flesh, blood, hair, wool, bones, fat, &c. Agri-
cultural writers consider them, in general, as more powerful
in their effects, in promoting vegetation, than such as are de-
rivcd from vegetable matters. However, on account of
their being seldom procured in large quantities, they are
mostly made use of in the state of mixture or combination
with other materials, either of the earthy or littery kinds;
in both which cases they may be highly beneficial. In
the former by the action of the ammoniac, which is con-
stantly formed in large quantities, during the decomposition
and decay of animal matters on the mould, and rendering it more
suitable for the support of plants; and, in the latter, by
their well known property of promoting fermentation,
and thus hastening the reduction of the materials into the state of
manure. See Manure.

Animal matter, in Chemistry. The ancient division of
all natural bodies into the three grand classes of mineral, vegeta-
table, and animal, a division founded upon simple observation,
and not upon preconceived theory, may still be retained as
a classification of some practical utility to the chemist,
thought infinitely less so than to the physiologist.

A complete knowledge of the chemistry of animal matter
would comprehend an intimate analysis of all the materials
out of which it is formed, and of their mode of combination;
whereby, from a few simple elements, the great variety of
aliments used by the living animal are produced: it would
also require a minute examination into the processes of
digestion and assimilation of food, step by step, in order to
trace the curious and interlacing conversion of inanimate
matter into an integrant part of the living animal; and
more than all, it would include an investigation into the most
terrible secrecies of nature, in order to determine how far the
known laws of chemical affinity are affected by animal or-
ganization, and by the vital principle. The very imperfect
progress which has been made in this branch of chemical
inquiry shews the great and almost insuperable difficulties
which attend its pursuit; and, notwithstanding the real dis-
covcries made by modern chemists, and the self-complicity
with which they are so often brought forward, little else can
be related on the chemistry of animal matter, than a col-
lection
leision of detached facts and unconnected experiments, from which no plausible theory of the process of animalization has been deduced, and but little assistance has been afforded to the science of physiology, and perhaps still less to the cure of disease.

Before we enumerate the particular parts of animal matter which have afforded the greatest scope to chemical experiment, it may be proper to premise a few remarks on the materials out of which animal matter is formed; on the mode in which they are elaborated within the living body; and on the chemical properties which appear to be common to every part of the animal kingdom.

Two principal functions, poffed, as it were, by every living creature, prepare the materials out of which the animal body is constituted, and from which it draws perpetual supplies; these are, digestion and respiration.

The food taken in by the mouth is the most obvious and abundant source of supply to the body; and this cannot be said to have become an integral part of the animal which receives it, till it has been prepared in the stomach, by the processes of digestion, and till the chyle, or nutritive part which it furnishes, has been further assimilated in the lymphatics, and, at last, added to the mafs of circulating blood.

The vegetable kingdom furnishes, directly or indirectly, the whole of alimentary matter, except the common diluent, water. Hence, chemists have with great propriety directed much of their inquiries relating to this subject, to an examination of the characteristic differences which exist between vegetable and animal matter in general, and some important facts have appeared, which we shall presently relate. The ultimate analysis of vegetables, or that which reduces them to their simplest forms, furnishes us with very few materials. Of these, water is by far the most abundant ingredient; carbovanous matter the next in quantity, and equally constant; and chemical analysis will also show a certain portion of hydrogen and of oxygen unconnected with the composition of water, and a few saline and earthy parts, which, from their constant occurrence, have a claim to be considered as necessary constituents of vegetable matter. In tracing the decomposition of vegetable aliment, however, it should be remembered, that these materials are presented to the animal organs, not merely as so much hydrogen, carbon, and oxygen, but in the intermediate and already very compounded forms of farina, sugar, mucilage, and the like; forms in which their tendency to chemical change is much stronger than when they are reduced to their simplest mode of existence.

With regard to that very large proportion of aliment which is furnished from the animal kingdom itself, forming so much of the food of man, and the whole nutriment of many entire classes of living creatures, this, it is obvious, is still produced indirectly from vegetable matter, and the art of chemistry has not yet been able to detect any very sensible difference between the first, and the subsequent results of assimilation by animal organs. The most accurate chemical analysis could not determine with any certainty, whether a given portion of animal sublubance was a part of a carnivorous or a herbivorous animal; and this single circumstance shews, perhaps, as much as any other, the very imperfect state of our knowledge of the changes produced during digestion in the living organs.

A chemical change equally important with digestion, and still more uniform and constant in its operation, is the action of the external air on the animal fluids through the medium of respiration. The part which immediately receives the action of the air, is the blood while circulating in the extreme branches of the pulmonary arteries and veins in the cells of the lungs. Under the articles Respiration, and Blood, we shall relate at large the facts that have been discovered by the successive labours of some of the most ingenious philosophers which the world has produced, which prove incontrovertibly the analogy between this process and that of combustion, and its connexion with the animal temperature. There can be no doubt that respiration is a chemical process, the operation of which, as it is exerted on the general mass of circulating fluid, is extended through every part of the living body; and perhaps its effects are more peculiarly and exclusively chemical, than most of the other animal functions. Respiration too may properly be considered as the last step in the process of the assimilation of food, since the chyle, when thoroughly elaborated, is thrown into the mafs of blood returning to the heart, whence it directly passes to the lungs (entirely in some classes of animals, and partially in others), and is inducted to the chemical action of the external air, before it refews the round of circulation to suply the different purposes of the body.

As a defective respiration, in the case of original malconformation as well as of diseases, produces a train of disorders which are very strongly and pointedly marked, we may infer that the chemical analysis of the several parts of the body, if we had the means of sufficient accuracy of examination, would readily indicate the deficiency in a powerful a chemical agent as the atmospheric air. Opportunities for such an examination have not, however, been sufficiently frequent, nor is it certain that, in the present state of chemical knowledge, they could be rendered very conclusive.

In confidering the mode whereby alimentary matter is assimilated, or undistinguishingly blended with the solids and fluids of the living animal in which this function is going on, a very interesting inquiry presents itself, namely, to determine how far this process is purely chemical. (that is, conducted by the same laws of simple and complex affinity which operate on inanimate matter), and how far it is affected by the circumstances of the living principle. In favour of the former opinion the following arguments may be urged; first, that the food, whether derived from the vegetable, or the animal kingdom, or from a mixture of both, is a sublubance which strongly tends to spontaneous decomposition, in whatever situation it is placed; and that, ceteris paribus, it is more or less digestible in proportion to its greater or less disposition to chemical change. Likewise, as we have before mentioned, it is already a very compounded mixture, composed of simple elements indeed, but united by very complex affinities; and when in the form of animal flesh, of vegetable farina and the like, it is infinitely more liable to chemical change than if it were reduced to its elementary parts. Secondly, it may be urged, that a part at least of the preparation which the food undergoes in the organs of digestion is obviously a series of chemical processes. By the action of the teeth, of the gizzard, and similar apparatus, the mechanical process of commination is performed; to this succeeds maceration in the saliva, in the gall-bag, liquor, and in other animal secreted juices: the contractile power of the stomach affords constant pressure and agitation to the materials which it contains: a separation of the different parts of the heterogeneous mass under digestion, or a species of filtration, is performed by the biliary and the mesentric glands: during the course of circulation, a most intimate mixture takes place between the fresh supply of nutritive matter from the aliment, and the animal juices already contained in the vessels; and lastly the newly assimilated chyle undergoes a process similar to combustion, whilst in a state of intimate division within the ultimate ramifications of the
pulmonary vessels. To this it may be added, that the temperature of the animal in which these several processes are carrying on, is found by experiments out of the body to be highly favourable to that gradual and complex chemical change which reduces from animal or vegetable matter the greatest variety of important products.

Thirdly, it may be alleged, in answer to the forcible objection which will immediately arise to an explanation of digestion on purely chemical principles, from the impossibility of carrying on the same processes cut of the body, that the chemist cannot imitate animal digestion, because he has not all the materials at command, and especially because he cannot construct, by mechanical means, any apparatus resembling in the most distant degree the curious, beautiful, exquisitely elaborated and complicated organs which nature has furnished for this important process. This limitation has appeared so hopeless, that no such attempt has, to our knowledge, been made; for the valuable and interesting experiments of the late eminent physiologists, Spallanzani and Hunter, on what may be called, a partly artificial digestion, which will be mentioned in a future part of this work, do not come under this point of view.

It is far from our intention, however, to deny that in this, as well as in other functions of the body, the vital principle is to be esteemed as an agent for genera, of the highest importance; and, from the disturbance which certain affections of the nervous system will directly produce on the whole process of digestion, we cannot, perhaps, at any period of life, with entire propriety, from an explanation of its phenomena. The difficulty of investigation into the subject, which at all times is great, is moreover constantly increasing in proportion as the processes of assimilation advance, and at last becomes insurmountable, from the impossibility of gaining access to the interior parts of the animal structure, without producing a total derangement of the functions, and destroying life.

The chemist must, therefore, content himself with examining in detail the properties of animal matter, wherein very sensible differences may be detected, both between different parts and organs, and between the same parts and species, taken at the several periods of life, at different states of activity, and under the various circumstances of health and disease.

Chemists have long directed their attention to discover some characteristic properties common to every species of animal matter, whereby it might be distinguished from the products of the vegetable kingdom. Formerly the method of analysis was principally directed to the process of distillation in a retort, by a heat, at first gentle, and afterwards increased gradually, till every part of the animal matter was volatilized, and only a fixed residue of very difficult combustion, called expul mortuum, remained in the retort. The difference between animal and vegetable matter, when subjected to distillation, is highly important, and is well laid down by the celebrated Neuman, one of the most skilful and accurate chemists of his time. "Animal fabulances," he observes, "are excepted, on being distilled in close vessels, by a strong fire, give over, not a manifest acid liquor as vegetables do, but an urinous or volatile alkaline one, and commonly more or less of a concrete volatile alkaline salt, together with an empyreumatic oil more fetid than the oils of vegetables, and of a different kind of factor.

On calcining the remaining coal in open vessels, and exalting the ashes with water, we sometimes obtain a portion of ether as fixed stone matter, but very rarely a perfect alkaline, like that extracted from the ashes of ve; etables." In the analysis by fire, therefore, the production of ammonia, or volatile alkaline, is the most striking circumstance which characterizes animal matter; and hence the preparation of sal ammoniac, salt of hartshorn, and a variety of the ammoniacal salts, from the distillation of horn, bones, urine, camel's dung, and other animal matter, which forms a very extensive branch of chemical manufactures.

Animal putrefaction, considered as a method of chemical analysis, gives results similar to those of distillation, particularly in the production of the volatile alkaline; and hence it has long been remarked by the manufacturers of this alkali, that the product is much increased by suffering the materials to undergo a certain degree of putrefaction.

Chemists, however, were fully aware that the existence of ammonia, in its alkaline salt, in fresh animal matter, could not with certainty be inferred from its appearance after distillation, but only the presence of the materials out of which the volatile alkali may be separated. So, the author last quoted expressly observes, that the volatile alkaline salts obtained from animals are artificial productions, never found to exist naturally in any animal fibres in its perfect state. They are generally the action of fire, and putrefaction, and not by any known power besides."

The method of analysis, by simple digestion, has another imperfection (besides that of the introduction of an alkali, formed by the process, and not previously contained in the substance examined), which is, that it confounds in a few common products of distillation, a variety of parts, which in their natural state possess very specific and distinguishing qualities. This is particularly the case with those active and acid substances, which produce such powerful effects, either as medicines or poisons. It cannot but be a very imperfect analysis which exhibits no striking difference between the mildest and the most acrimonious substances; between the common articles of food, and those animal products of which the minutest portion introduced into the living body is capable of exciting the most violent commotions.

Modern chemistry has added to the analysis by fire, the use of a more refined and delicate mode of experimenting, the advantage of which we shall presently shew; though it must be confessed that it still throws little, if any, light on those inquiries into the animal body which are the most interesting to the naturalist and physician.

Another important difference between animal and vegetable matter when analysed by fire, is found in the fixed residuum which remains after distillation in close vessels. In vegetable matter this is composed principally of charcoal, in a very pure and easily combustible state, and of a small proportion of vegetable ashes, from which a fixed alkali is procurable. In animal matter, the coal which remains is very difficult of combustion, and leaves, for the most part, a large proportion of Phosphoric salts, generally united with lime. Likewise, if the animal matter be mixed with a fixed alkali before calcination, the Phosphatic acid, a substance peculiarly of animal origin, is found in the residue of combustion.

The great energy with which the nitrous acid acts upon almost every fibrescent immered in it, has long rendered it a very valuable instrument of analysis to the chemist; but as this acid is itself more or less decomposed in by far the greater number of operations in which it is employed, a previous knowledge of the intimate nature of this acid is requisite, in order to enable the chemist to explain the appearances which it produces when in chemical action. This having been obtained by the ingenious researches of several eminent chemists, among whom we may particularly mention the names of Cavendish and Priestley, the use of the nitrous acid has thrown considerable light on the nature of animal.
animal matter. The experiments of M. Berthollet on this subject (Mem. Acad. des Sciences, 1780 and 1785), are so complete and original, as to leave little further to be done by subsequent experimenters, to explain the ultimate composition of the great mass of animal matter.

M. Berthollet began his operations by treating various animal substances with nitrous acid, in the same method in which Bergman had pursued in order to obtain that acid from sugar, which has been termed the 'Saccharine acetic'. He chose silk for his first experiment, on account of the apparent uniformity of its composition. On distilling silk with seven or eight times its weight of nitrous acid, it was soon attacked by the acid, gave out copious red fumes, and presently diffused into a clear bluish liquor. This, on coagulating, yielded a considerable quantity of a yellowish of oxalic acid, exactly similar to that obtained from sugar by a similar treatment. Besides this acid, however, there was found swimming on the surface of the liquor, when cooled, a quantity of oily or greasy matter, which again diffused by heat, and remained in intimate combination with the solution of the oxalic acid. To obtain this greasy matter, M. Berthollet observes, lefs of the nitrous acid should be used than is necessary to give the largest product of oxalic acid.

This excellent chemist then repeated the experiment with a variety of animal matters, in all of which he found similar results, though with a wide difference in the respective proportions of animal grease, and oxalic acid. Of all the substances used, wool was found to give the greatest quantity of oxalic acid. From six gos M. Berthollet obtained somewhat more than half the weight of the crystallized acid, whereas sugar itself only gives about one third of its weight. Skin and hair gave nearly the same results as wool. On the other hand, muscle or flesh, deprived of its natural fat, yielded, with nitrous acid, a very large portion of the abovementioned grease, and a very small quantity of oxalic acid, which could hardly be separated by crystallization from the grease with which the liquor contained. Sixteen ounces of veal, reduced by drying to four ounces, yielded three gos (eight of which make an ounce) of oxalic acid, and a small portion of grease. Thirty-two ounces of whites of eggs, hardened by boiling, and reduced by drying to two ounces, gave two gos and a half of acid, and a moderate quantity of grease.

The author then proceeds to some remarks on the nature of this peculiar greasy matter, which deserves attention.

Vegetable substances, he observes, though containing oil in their composition, when treated with nitrous acid, have their oil so entirely destroyed by its action, that no traces of it can be detected after this operation. Animal matter, on the contrary, always yields more or less of an oily or greasy substance after distillation with nitrous acid, which grease in part adheres strongly to the oxalic acid, and makes it difficult of crystallization, and in part combines with the distilled acid, giving it an unusual yellow colour, and the disagreeable odour of all animal oils. This latter portion may be separated chiefly, but not entirely, by saturating the acid with an alkali, when the animal oil concretes into a stiff grease.

The animal oil differs also from the vegetable, particularly in giving much volatile alkali by distillation, whereas the vegetable yields an empyreumatic acid. It is to be observed, that the oil, both animal and vegetable, which is here spoken of, is not that which in animals is separated in the form of fat, and is secreted in the cells of the adipose membranes; and in vegetables, is deposited in the oil cells of seeds and fruits, or united with mucilage and farina in the emollient plants; but it is an oil which seems to bemost intimately united with every animal and vegetable substance, and never appears in the form of oil or grease, unless when separated by some powerful chemical agent, such as the nitrous acid.

We have mentioned it to be the most striking characteristic of animal matter, to yield a certain quantity of ammoniac by distillation, and we shall now return to this subject, which indeed is directly connected with all that has preceded, and examine into the cause of this product. Under the article AMMONIA, we mentioned how much chemistry was indebted to the successful labours of M. Berthollet for a knowledge of the exact proportion of the constituent parts of this alkali, and particularly of the theory of its production during the decomposition of animal matter.

Ammonia is formed of about three parts of azot, or animal mephitis, as it is sometimes termed, and one of hydrogen. A simple and convincing proof that it is not originally contained in animal matter in the form of an alkali, is, that after animal substances have been distilled in nitrous acid, no nitrated ammonia can be detected by the minutest examination. But the constituent parts of the volatile alkali must be contained in the animal matter, otherwise it would not yield it by simple distillation. Dr. Priestley has observed, that when animal flesh is immersed in nitrous acid, there is an immediate diffiguration of gas which is chiefly phlogificated (azotic) air, but sometimes mixed with nitrous gas, and with fixed air. With the same view, M. Berthollet added an ounce of silk (Mem. Acad. des Sciences, 1785), six ounces of concentrated, pale, nitrous acid, at the temperature of 70°. Nearly 120 ounce measures of gas were diffigured without heat, of which a small part was absorbed by lime water, and was fixed air, and the remainder gave all the appearances of azotic air. The silk being entirely dissolved, a small portion of the greasy matter which we have mentioned above, concreted, and was separated from the solution. Lime-water being added, no precipitation took place, which was a proof that no oxalic acid had yet been formed by the action of the nitrous acid, for, adding afterwards a drop of oxalic acid, an immediate precipitation appeared. The solution being then gently warmed, a violent effervescence took place, nitrous gas was given out in abundance, with the production of much heat, and the solution now contained a considerable quantity of oxalic acid. From this experiment it appears, that there are two distinct periods of the operation of nitrous acid on animal matter; the first, its action without heat; the second, after heat has been applied. The first produces a large portion of nearly pure azotic gas, and it is interesting to determine whence is its origin. as azot is a constituent part of nitrous acid, as well as of animal matter; it is rendered highly probable, however, that the azotic gas produced in the first instance, owes its origin to the animal matter, and not to the nitrous acid, since the latter is capable of acting afterwards with equal energy, as if heat had been applied immediately, and of giving as much nitrous gas. Moreover, M. Fourcroy has observed, that the nitrous acid, after being digested without heat upon animal matter, is able to saturate as much alkali as before the process, which is as convincing a proof of its non-decomposition as we can well have. Therefore, we may consider it as well established, that when nitrous acid and animal matter are digested together, without using artificial heat, the azotic gas which is produced in such abundance arises solely from the animal subslance; that at this period no oxalic acid is formed, but some of the peculiar greasy matter is produced. Afterwards, on heating the mixture, the nitrous acid is itself rapidly decomposed, forming the nitrous gas which escapes, and giving its oxygen to that part of the animal matter which furnishes the basis of the oxalic acid, besides probably occasioning other changes.
ANIMAL MATTER.

changes in which, as the component parts of the nitrous acid are also found in animal matter, the exact operation of the materials furnished by each cannot be dislimphed.

The proof of the existence of azot in animal matter having thus established, we can readily account for the formation of ammonia during distillation per se, or putrefaction, by an union of the animal azot with hydrogen, which may be furnisheil also from the animal fulifcence, perhaps from the decomposing of water, which is abundantly contained in every part of the animal kingdom.

Another proof of the connection between the azot of animal matter, and the production of ammonia, has been furnished by the following ingenions manner by M. Berthollet. For this purpose he made comparative experiments between the inflamable air of noxious gas and the gas furnished by the distillation of fugar, of charcoal, and of oil, and the gas yielded by the distillation of fugar, charcoai, and oil, and is boiled out as frell as possible. Of these four latter substances (for the former may be neglected for our present purpose), the fugar, charcoal, and oil, are vegetable, and give no ammonia by distillation; the latter is animal, and, like all animal matters, produces this alkali. The gas furnished by each was exposed to lime water, and denoted with oxygen in order to absorb every thing but the azot. Now, as the fugar, being of animal origin, contained much more azot than the other substances, it ought to have left a much greater residuum of azotic gas, unless the latter entered into some new combination during the distillation of the fugar, by which its form of azotic gas would be lost. As the residuum was not fufficiently greater than the rest, the azot must have assumed a new form during distillation, and this could have been no other than the volatile alkali which was directly dissolved in the water, through which the distilled gases passed unto the recipient.

Experiments of a later date than those of M. Berthollet, just cited, have shown a differegment of azotic gas, or a production of ammonia from animal matter, by the action of some other of the more powerful acids, and even of the fixed alcalies; but the operation of these is not yet satisfactorily explained, nor does it illustrate in a striking manner the composition of the animal kingdom.

The limits between animal and vegetable matter, laid down by the presence of azot and the production of ammonia, though for the most part sufficiently precise, are, in a few instances, surpaffed.

These are, by those vegetable products, which have been termed vegetal-animal, because they resemble certain corresponding animal matters in the characterislic properties above mentioned.

The gluten of wheat, and some other parts of vegetables, bears a considerable affinity to animal gluten in various properties, and, like it, contains azot, and yields ammonia. The albumen found in the fresh juice of the succulent parts of the tetradynamious plants, is equally similar to the albumen of animals; and the vegetable fungi, when under putrefaction, exhibit to the chemist appearances strongly resembling those of decomposing animal matter.

In the analysis of animal matter, we have principally dwelt on the operation of the nitrous acid, as it has been the means of elucidating this subject in a peculiar manner, and as it furnishes a method of comparison by which the action of other chemical agents may be inferred with considerable accuracy. A few words should, however, be paid on the operation of other reagents in analysis.

The effect of heat on animal matter varies according to the degree which is applied. A gentle warmth simply dissipates the watery part, during which operation the substance generally loses a great part (sometimes by far the greatest) of its weight and bulk.

Animal matter, when thus dried, is long preferred from putrefaction, as moisture is essential to this process of decomposition. So, bodies of animals that have been overwhelmed in the dry hot sands of the African deserts, are first thoroughly desiccated, and then will remain in this medium for many years unmattered. A lower degree of warmth, however, if not sufficient to evaporate the moisture from animal fulifcence, favours putrefaction, and increases the tendencies to decomposition. On the other hand, animal matter, so perishable in itself, is preserved to all appearance absolutely unmattered, whilst exposed to a severe freezing cold. The blood (which when at rest in a moderate temperature, even within the blood-veils, but especially when drawn out, very suddenly coagulates), if suddenly frozen before coagulation, retains for a while its original properties; and when thawed in a gentle warmth, at first becomes liquid, and afterwards coagulates. In like manner, animal flesh employed for food may be preserved, when frozen, for any length of time; and, if thawed gradually, retains all its properties, even to the peculiar flavour which it possesses at first. A degree of heat from about 150° to that of boiling water, begins to produce upon animal matter certain chemical changes independent of the mere evaporation of water: the most important of these is the coagulation of the albumen, which is an abundant and amorphous ingredient in the animal juices. Under the article of albumen we have given the opinions of chemists concerning the cause of the singular property of coagulation bynews, which, however, is but very curiously ascertained. Albumen, when once coagulated, is no longer soluble in boiling water, and hence it may be separated with ease from any watery solution in which it may be contained. A heat considerably greater than that of boiling water cauies animal matter to swell considerably, to twill in every direction as if it still retained some degree of irritability; to soften or melt down, to exhale a copious dense vapour of a festid smell, and, according as the heat is regulated, to yield an empyreumatic oil, an ammoniacal liquor, and often the prussic acid, with a considerable quantity of carbonic and hydrogen gases, arising from the total decomposition of the fulifcence employed.

Water is another re-agent in the analysis of animal matter, which may often be employed with considerable advantage. All the soft parts of animals, when kept immersed in cold water for a considerable time, appear to become thoroughly penetrated with this liquor, have their texture softened, and their bulk enlarged, and yield to its dissolving power all their fat, gelatinous, and albuminous contents. This solution is likewise considerably solfible by the commencement of putrefaction, which soon takes place in moist animal matter at a moderate warmth. The gluten or coagulum of the blood is, however, insoluble in water, when it has once separated by coagulation from the circulating liquor; and hence, by long and repeated effusion of cold water, the coagulum of blood may be freed from the red globules which give it its colour, and from every other extraneous matter, and at last remains in al flat of great purity, in the form of a grey, tenacious, and elastic fulifcence. Muscular flesh may be, in like manner, brought, by mere washing with cold water, into a similar flat of purity. Animal oil or fat, which is naturally mixed with a kind of mucilage, may also be freed from it by melting, and repeated mixture with water, assisted by strong agitation. Heated water is a more active agent in softening the texture of animal matter, and extracting its soluble part; and the assistance of a boiling temperature renders completely soluble every kind of con-
denuded animal membrane, such as skin, cartilage, tendon, and the like. At the same time, however, heat coagulates the albumen, and renders it insufiable in water, so that to obtain the full action of water on animal matter, it should be used first cold, or only moderately warmed, and afterwards heated to ebullition. But there is no part of animal matter which can resist the united action of water and heat, when a temperature above the boiling point is employed, by means of Papin's digester. Gluten, albumen, gelatine, and salts, are then all brought down to complete solution; the oil alone, for the most part, remaining unmixed. Papin's digester, therefore, when judiciously employed, may prove an instrument of some importance in animal analysis; but its use is attended with this inconvenience, that the substances dissolved in water by its powerful affinaceous, cannot be separated from each other by any means with which we are acquainted.

The caufic alkalies are also employed in the analysis of animal matter, particularly as a solvent for gluten and coagulated albumen, after the action of water has been exhausted. The solution of animal matter in alkali, which is the most familiar to us, is that of oil or fat, forming the well-known compound, soap. It would be of advantage to the experimental chemist if the operation of the alkalies were here confined to the oily ingredient, as this is to little soluble in any other menstrum. But the inconvenience of using these powerful re-agents is similar to that of employing Papin's digester, for they act with great energy on all the soft parts of animals indiscriminately, and confound the whole in one saponaceous mass. This, indeed, may be considered in general as the principal obstacle to any satisfactory analysis of animal matter, that all the methods which the chemist can employ, are too general in their operation, and little calculated to mark those shades of difference in the animal composition, which, though perhaps slight when chemically considered, certainly produce very important effects on the functions of the living body.

The chemistry of animal matter appears to us to be still too little known to admit of any scientific arrangement which can give full and comprehensive views of this extensive, interetling, and complicated subject. We shall, therefore, refer the reader to the several articles under their respective heads, which include, either generic distinctions, such as gluten, albumen, gelatine, and the like; or specific solids and fluids, such as bone, blood, milk, skin, &c. The detail of a variety of important experimental inquiries which have been made by several eminent chemists, affords an abundance of interetling matter, which promises a copious harvest of discovery to the follower of this branch of chemical pursuit.

Animal motion is the same with what we call muscular motion. It is divided into two branches: natural or involuntary, and spontaneous.

Animal oil, see Oil.

Animal secretion is the act whereby the diver juices of the body are secreted or separated from the common mass of blood, by means of the glands. See Secretion.

Animal spirits are a fine subtle juice or humour in animal bodies: supposed by many to be the great instrument of muscular motion, sensation, &c.

The ancients distinguished spirits into three kinds, viz. animal, vital, and vegetative: but the moderns have reduced them to one sort, viz. animal; about the nature of which, and the matter whence they are formed, great disputes have arisen among anatomists, though their existence has never been fairly proved.

In the History of the Royal Academy of Sciences at Paris, an. 1759, there is an ingenious memoir on this subject by Mr. Buffon. He undertakes to prove, that the nervous fluids, or animal spirits, circulate; that if they depart from the brain, they return to it by the nerves. In short, he proposes to form the course of this fluid into a system of circulation, less demonstrable, indeed, to the senses than that of the circulation of the blood, but, in other respects, grounded on equally solid reasons.

As it is hard to define what could never yet be brought under the judgment of our senses, all that we shall here offer concerning them, is, that they must needs be extremely subtle bodies, which escape all manner of examination by the senses, though ever so well affected: and pervade the tracts of the nerves, which yet have no discovery of exacty or perforation; nor could they be by any experiment be collected; yet are constantly moving in vast quantities, as they must of necessity be, to perform all those mighty operations which are ascribed to them. However, the antiquity of the opinion claims some reverence.

By the help of these spirits we are furnished with a vast number of precocious solutions of great phenomena; and without them we must have a great chain in the philosophical history of animal bodies; but, after all, the phenomena that would, in this case, be unexplained, are, perhaps, to us inexplicable.

They are supposed to be separated in the brain from the subtilest parts of the blood; and thence carried by the nerves to all the parts of the body, for the performance of all animal and vital functions; and the discovery of the galvanic electricity will probably throw considerable light on this obscure subject. See Nervous Fluid.

Animal substances comprehend all the component parts of animals, of what use or intention they may be.

Animal fossil substances, those found buried in the earth at various depths, and embodied among various strata.

There are principally of four kinds: 1. Sea shells. 2. The teeth, bony palate, and bones of fishes. 3. The bones of land animals. And, 4. complete skins. See Fossil Bones, Fossil Shells, Marine remains, and Fossil Ivory.

Animal substances, fermentative quality of. See Ferment, and Fermentation.

Animal systems, imports the whole classes of beings endowed with animal life.

In which sense animal system amounts to the fame with what chemists and others call the animal kingdom. Animal is also sometimes applied, in a figurative sense, to artificial or moral things.

Hobbes considers government as a huge complex animal, under the denomination of Leviathan.

The reason of the appellation is founded on the analogy between an animal and a political body. The sovereign, or legislative power, answers to the soul; the magistrates, to the limbs or members; rewards and punishments are the nerves; riches, the strength; compound, the faculty of memory; equity, reason; sedition, fecknels; civil war, death.

Animalcule, Animaeculum, a diminutive of animal, and applied, in a general manner, to those creatures whose true figure cannot be discerned without the help of glaccles, and more especially of such as are invisible to the naked eye.

Animalcules are usually divided into two, and, by some, into three distinct families, visible, microscopic, and invisible: the first, though visible, cannot be accurately discri-
cerned without the help of glasses; the few are discoverable only by the microscope; and the last are merely perceived by touch, for they are still unknown. The existence of the latter cannot well be disputed, though it cannot be affirmed, unless we conclude, that the microscope has not yet arrived at its highest degree of perfection. Reason and analogy give some support to the conjectures of naturalists in this respect: animalcules are discerned of various sorts, from those which are visible to the naked eye, to such as appear only like moving points under the microscopic lenses of the greatest powers: and it is not unreasonable to imagine, therefore, that there are others which may fill the field of the microscope, as the fixed stars do that of the telescope with the greatest powers hitherto invented.

ANIMALCULES, vividly: amongst these are included an amazing variety of creatures by no means of an analogous nature. Those numerous creatures which crowd the water in the summer months, changing it sometimes of a deep or pale red colour, green, yellow, &c. are of this description. The larger kinds are chiefly of the infect, or vermin tribes, and of which the mononculus pules is particularly remarkable, being sometimes found in such abundance, as to change the water apparently to a deep red. A similar appearance is likewise occasioned by the cercariae mutabilis, when it varies in colour from green to red; vorticella fusciculata also changes it to green; and rotatoria to yellow. To this section we must also refer many of the acarus and hydraehna genera, and a multitude of other creatures, that will be noticed hereafter.

ANIMALCULES, microscopical. The microscope discovers legions of animalcules in most liquids, as water, vinegar, beer, dew, &c. They are also found in rain and several chalky waters; and in infusions of both animal and vegetable subtances, as the seminal fluids of animals, pepper, oats, wheat and other grain, tea, &c. &c.

Those who have made the most minute researches, and the most accurate inquiries into the natures of the several objects subjected to their views, have found that theustinces, upon which they employed their curiosity, were often quite different from what at first they appeared to be. Thus, for instance, the whole earth has been found replenished with an incalculable store of what we should call of all sorts, that is, an infinite number of animalcules floating in the air we breathe, sporting in the fluids we drink, or adhering to the several objects we see and handle. The conjectures and hypotheses relating to the production, generation, structure, and uses of these animalcules, have been as various as were ever contrived by caprice, or embraced by credulity. Not to bewilder ourselves, however, in these labyrinths, but to confine our attentions to actual discoveries, by the assistance of the microscope we not only perceive that such animalcules exist, but are also enabled, in some degree, to determine their shapes, and the various peculiarities of their motion.

The contemplation of animalcules has made the ideas of infinitely small bodies extremely familiar to us. A mite was anciently thought the limit of littleness; but we are not now surprised to be told of animals twenty-seven millions of times smaller than a mite.

Minute animals are found proportionally much stronger, more active, and vivacious than large ones. The spring of a flea in its leap, how valiantly does it outstrip any thing greater animals are capable of! A mite, how valiantly faster does it run than a race-horse! M. de l'Isle has given the computation of the velocity of a little creature scarce visible by its smallness, which he found to run three inches in half a second: supposing now its feet to be the fifteenth part of a line, it must make five hundred steps in the space of three miles; that is, it would lift its legs five hundred times in a second, or in the ordinary pulsation of an artery. Hill, Acad. 1751, p. 27.

The excessive minuteness of microscopic animalcules conceals them from the human eye. One of the wonders of modern philosophy is, to have invented means for bringing creatures to us so imperceptible, under our cognizance and inspection: an object a thousand times too little to be able to affect our senses, should seem to have been very safe. Yet we have extended our views over animals to whom these would be mountains. In reality, most of our microscopic animalcules are of so small a magnitude, that through a lens, whose focal distance is the tenth part of an inch, they only appear as so many points; that is, their parts cannot be distinguished, so that they appear from the vertex of that lens under an angle not exceeding a minute. If we investigate the magnitude of such an object, it will be found nearly equal to the tenth of an inch long. Supposing, therefore, these animalcules of a cubic figure, that is, of the same length, breadth and thickness, their magnitude would be expressed by the cube of the fraction of the lens, that is, by the number 1/100000000:0000 that is, so many parts of a cubic inch is each animalcule equal to.

Leeuwenhoek calculates, that a thousand millions of animalcules, which are discovered in common water, are not altogether so large as a grain of sand. This author, upon examining the same form of various animals, discovered in many, infinite numbers of animalcules not larger than those above mentioned. In the midst of a single bed of filth, there are more animals than there are upon the whole earth, for a grain of sand is bigger than four millions of them. The white matter that sticks to the teeth also abounds with animalcules of various figures, to which vinegar is fatal; and it is known, that vinegar contains animalcules in the shape of eels. In short, according to this author, there is scarcely anything which corrupts without producing animalcules. Animalcules are said to be the cause of various disorders. The itch is known to be a disorder arising from the irritation of a species of animalcules found in the pubes of that animal: whence the communication of it by contact from one to another is easily conceived, as also the reason of the cure being effected by cutaneous applications. On this foundation some have attributed the small-pox and measles, and infectious diseases; others the epilepsy, &c. to animalcules. Langius goes farther, and pretends to reduce all diseases in general to the same principle; and many other chimerical theories have been formed upon the discoveries made by Leeuwenhoek and other naturalists, on the subject of animalcules.

The discovery of animalcules in the semen of animals was made known to the world about the end of the year 1677, or beginning of 1678, both by Leeuwenhoek and Hartsoeker; but as the observations of the former are more particular, and his experiments more numerous than those of the latter, the merit of the discovery is generally attributed to Leeuwenhoek. According to this naturalist, these animalcules are found in the semen of male animals of every kind, and their appearance is much the same in all; nor do they differ in size, in proportion to that of the animal to which they belong. The Igles of all of them seem to be of an oblong-oval form, with long tapering tendril tails issuing from them; and as by their shape they resemble tadpoles, they have been frequently called by that name; though the tails of them, in proportion to their bodies,
cles, are much longer than the tails of tadpoles are; and it is observed, that the animalcula in the semen of fishes have tails much longer, and more slender, than those in the semen of other animals, infomuch that their extremities are not to be discerned without the bell glasses.

These animalcula appear to be very vigorous and tenacious of life; for they have been observed to move long after the animals, from which they were taken, were dead; and seem to be peculiar to the semen, as nothing that has the least appearance of life has been yet discovered in the blood, sputum, urine, gall, or chyle.

The production of animalcula infusoria is very surprising. In four hours time, an infusion of cantharides has produced animalcula less than even the tails of those in the semen of animals; and it is said, that hot mutton gravy, seeded in a phial with a cork, and afterwards set among hot ashes, to destroy as effectually as possible every living creature that could be supposed to exist in it, has, nevertheless, been found swarming with animalcula, after standing a few days.

In the Philosophical Transactions, vol. lix., is the following curious account of the animalcula produced from an infusion of potatoes, and another of hemp-feed, by the late Mr. Ellis. "On the 25th of May, 1768, Fahrenheit's thermometer 70°, I boiled a potato in the New River water, till it was reduced to a mealy consistence. I put part of it, with an equal proportion of the boiling liquor, into a cylindrical glass vessel that held something less than half a wine pint, and covered it close immediately with a glass cover. At the same time I placed an unboiled potato, and, as near as I could judge, put the same quantity into a glass vessel of the same kind, with the same proportion of New River water not boiled; and covered with a glass cover, and placed both vessels close to each other.

On the 26th of May, twenty-four hours afterwards, I examined a small drop of each by the first magnifier of Wilson's microscope, whose focal distance is reckoned at 1/4 part of an inch; and, to my amazement, they were both full of animalcula, of a linear shape, very distinguishable, moving to and fro with great celerity; so that there appeared to be more particles of animal than vegetable life in each drop.

This experiment I have repeatedly tried, and always found it to succeed in proportion to the heat of the surrounding atmosphere; so that even in winter, if the liquors are kept properly warm, at least in two or three days the experiment will succeed.

What I have observed are infinitely smaller than spermatic animals, and of a very different shape: the truth of which every accurate observer will soon be convinced of, whose curiosity may lead him to compare them; and, I am persuaded, he will find they are on no way akin.

At present, I shall pass over many curious observations which I have made on two years experiments, in order to proceed to the explaining a hint which I received last January from M. de Sauffure, of Geneva, when he was here; which is, that he found one kind of these animalcula infusoria that increase by dividing across into nearly two equal parts.

I have often seen this appearance in various species a year or two ago, as I found upon looking over the minutes I had taken, when I made any new observation; but always supposed the animals, when in this state, to be in coition.

Not hearing, till after M. de Sauffure left this kingdom, from what infusion he had made his observation; his friend, Dr. de la Roché, of Geneva, informed me, the latter end of February last, that it was from hemp-feed.

I immediately procured hemp-feed from different feedsmen in different parts of the town. Some of it I put into New River water, some into distilled water, and some into very hard pump water. The result was, that in proportion to the heat of the weather, or warmth in which they were kept, there was an appearance of millions of minute animalcula in all the infusions; and, some time after, oval ones made their appearance. There were much larger than the first, which still continued: these wriggled and fro in an undulatory motion, turning themselves round very quick all the time they moved forwards. I was very attentive to see these animals divide themselves; and, at last, I perceived a few of the appearance of fig. 3. a, as it is represented by the first magnifier of Wilton's microscope: but I am so well convinced by experience that they would separate, that I did not wait to see the operation; however, as the following sketches, which I have drawn from five other species, will very fully explain this extraordinary phenomenon, there will be no difficulty in conceiving the manner of the first. See fig. 4. 5. 6. 7. 8.

The proportion of the number of these animals, which I have observed to divide in this manner, to the rest, is fearc 1 to 50; so that it appears rather to arise from hurts received by some few animalcula among the many, than to be the natural manner in which these kinds of animals multiply; especially if we consider the infinite quantity of young ones which are visible to us through the transparent skin of their bodies, and even the young ones that are visible in the young ones while in the body of the old ones.

But nothing more plainly shows them to be zoophytes than this circumstance, that when, by accident, the extremity of their bodies has been shrivelled for want of a supply of fresh water, the applying more fresh water has given motion to the part of the animal that was still alive; by which means this harmless figure has continued to live, and to move, and fro all the time it has been suppled with fresh water.

The preceding remarks of Mr. Ellis are particularly satisfactory, as they point out the manner in which animalcula of various other kinds may be produced by infusions of vegetable matter; but it is probable he is mistaken respecting the species generated in the infusion of hemp-feed; and which is called volvex ovalis, or egg-shaped volvex. Perhaps this is volvex globulator, Linn., which is usually spherical, but of an oval form at intervals, and especially at the time the infant brood is separated from the parent; for it seems at that moment to divide, and become two distinct animalcula, as Mr. Ellis mentions. Vide Plate III. of Verms Infusoria, Microscopical Objects. &c. &c.

As the different species will be more fully noticed in their respective places, we shall conclude our remarks with a few observations on the doctrine of equivocal generation, and the different opinions that have arisen respecting the origin and nature of animalcula in particular. Before the invention of microscopes, the doctrine of equivocal generation, both with regard to animals and plants of some kinds, was universally received; but this inference soon convinced every intelligent person, that those plants which formerly were supposed to be produced by equivocal generation, arose from seeds; and the animals, in like manner, from male and female. But as the microscope threw light upon one part of nature, it left another involved in darkness; for the origin of animalcula infusoria, or the spermatic animals already mentioned, remained as yet as much unknown as that of many other kinds was, when the doctrine of equivocal generation reigned in full force.

The discovery of spermatic animalcula was thought to throw some light on the mysterious affair of generation itself; and the minute creatures were imagined to be each of them individuals of the same species with the parent. Here

8 2
the infinite number of these animalcles was an objection, and the difficulty remained as great as before; for, as every one of these animalcles must necessarily be produced from a male and female, to explain their origin by animalcular generation in the same manner, was only explaining generation by itself.

This hypothesis, therefore, having proved unsatisfactory, others have been invented. M. Buffon, particularly, hath invented one, by which he at once annihilates the whole animalcular world; and in this he has been followed by several ingenious philosophers. His hypothesis is diametrically opposite to that of Leeuwenhoek, who described many distinct species of the spermatic animalcles as living bodies, and conceived it necessary that one or more of them should penetrate, or impregnate, the ovum, to effect the purpose of generation.

From a variety of experiments made on the human femen (males), M. Buffon concludes, that what have been called spermatic animalcles, are not creatures really endowed with life, but something proper to compose a living animal; and he distinguishes them by the name of organic particles. The same individual kinds of animals he declares he has found in the fluids separated from the ovaria of females; and for the truth of this appeals to the testimony of Mr. Needham, who was an eye witness of his experiments. He also brings an additional proof of his doctrine from Mr. Needham's observations on the milch of the calmar, a species of cuttle-fish. Here the spermatic animalcles, at least what have only the appearance of life, are vastly larger than in any other creature, so as to be plainly visible to the naked eye. After considering the organization of these particles very fully, he concludes, that they are not animalcles, or endowed with life; and infers, that all the moving bodies that are to be found in the infusions of either animal or vegetable substances, are of a similar nature. To discover whether all the parts of animals, and all the seeds of plants contained moving organic particles, he made an infusion of flesh of different animals, and of the seeds of more than twenty different species of vegetables; and, after remaining some days in close glasses, he found the pleasure of seeing organic moving particles in all of them. In some they appeared sooner, in others later; some preferred their motions for months, and others soon lost it. Some, at first, produced large moving globules, resembling animals, which changed their figure, split, and became gradually smaller. Others produced only small globules, whose motions were extremely rapid; and others produced filaments, which grew longer, seemed to vegetate, and then swelled, and poured forth torrents of moving globules. This observation gave rise to a new system; Baron Munchhausen, perceiving that the last mentioned moving globules, after moving for some time, began to vegetate, concluded they were at first animalcles, and then plants; an hypothesis which Mr. Ellis endeavored to overturn, by ascertaining, that they were no other than the seeds of that genus of fungi called muced, or moul- dines; and that their motion is owing to numbers of minute animalcles attacking them for food.

M. Buffon is not, however, content with denying life only to those beings where the signs of it are most equi- vocal, but includes, in the same rank of organic particles, almost every animal too small to be discovered by the naked eye; and even some of those whose motions are evidently perceptible to the naked eye. He observes, that "almost all microscopic animals are of the same nature with the moving bodies in the seminal fluids, and infusions of animal and vegetable substances. The cells in pate and vinegar, &c. are all of the same nature, and derived from the same origin. There are, perhaps, as many beings that either live or vegetate, produced by a fortuitous allembrage of organic particles, as by a constant and successive generation. Some of them, as those of the calmar, are only a kind of machines, which, though exceedingly simple, are very active. Others, as the spermatic animalcles, seem to imitate the movements of animals. Others resemble vegetables in their manner of growth and extension. There are others, as those of the lighted wheat, which at pleasure can be made alternately to either live or die, and it is difficult to know to what they should be compared. There are still others, and in great numbers, which are at first a kind of animal, then become a species of vegetables, and again return alternately to their vegetable state. The cells in pate have no other origin than the union of the organic particles of the most essential part of the grain. The first cells that appear are certainly not produced by other cells; but though they are not propagated themselves, they fail not to engender other living cells. By cutting them with the point of a lancet, we discover smaller cells lying in great numbers out of their bodies. The body of this animal seems to be only a thread, containing a multitude of smaller animals, which perhaps are other theshes of the same kind, in which the organic matter is assimilated into the form of cells."

The accurate experiments of Baker, Ellis, Muller, Curti, Roffredo, and many others, sufficiently refute the inconclusive reasoning of Buffon; and we cannot do better than conclude, in the words of a late ingenious writer, Mr. Adams, who has treated at some length on the same subject in his Essays on the Microscope.

"Though we can by no means pretend to account for the appearance of most animalcles, yet we cannot help observing, that our ignorance of the cause of any phenomenon is no argument against its existence. Though we are not, for instance, able to account in a satisfactory manner for the origin of the native Americans, yet we suppose M. Buffon himself would reckon it absurd to maintain, that the Spaniards, on their arrival there, found only organic particles moving about in disorder. The cafe is the very name of the cells in pate, to whose animation he objects. They are exceedingly small in comparison with us; but, with the solar microscope, Mr. Baker has made them a more respectable appearance, so as to have a diameter of an inch and a half, and a proportionate length. They swam up and down very briskly; the motion of their intellines was very visible; when the water dried up, they died with apparent agony, and their mouths opened very wide. Now, were we to find a creature of the size of this magnified cell galloping in a place where water had lately been, we should certainly never conclude it to be merely an organic particle, or fortuitous allembrage of them, but a fish. Why then should we conclude otherwise with regard to the cell in its natural state, than that it is a little fish? In reasoning on this subject, we ought ever to remember, that however essential the distinction of bodies into great and small may appear to us, they are not so to the Deity, with whom, as Mr. Baker well expresses himself, 'an atom is a world, and a world but as an atom.'" Were the Deity to exert his power a little, and give a natural philosopher a view of a quantity of pate filled with cells, from each of whose bodies the light was reflected as in the solar microscope, our philosopher, instead of imagining them to be mere organic particles (as the pate would appear a little mountain), would probably look upon the whole as an allembrage of serpents, and be afraid to come near them. Whenever, therefore, we discover beings, to appearance endowed with a principle of self-preservation, or whatever we make the characteristic
ANJ

The udfenr flows from an incision of a tree in Brasil and New Spain, and in the island of Antigua, called courbaril, a species of hymenae; and by Plo, itah, the liquid juice, according to Plo, running down from the tree, sinks into the ground, and is afterwards dug up; so that the larger masses are often full of earth.

The eflern gum amine, which is a finer sort, is distinguished into three kinds: the first is white; the second blackish, in smell like myrrh; the third pale, resinous, and dry.

The small tears are the purest; it has little taste, but an agreeable smell; it easily breaks between the teeth, but if chewed for some time, it softens, and becomes adhesive. Laid on red-hot iron, it melts immediately, catches flame, and burns quickly away, leaving a small quantity of white ashes. It gives but little or nothing to water, but dissolves entirely in rectified spirit; the solution being of a yellow colour, with the odour of the amine, and a warm, pungent, bitterish taste. A small portion of effential oil is obtained by distilling with water a large quantity of amine. This resin has often been confounded with gum copal.

The Brazilians are said to employ amine in fumigations for pains proceeding from cold and rheumatism; they also chew it for the relief of colics and flatulencies; it has been also recommended in catarrhal and paralytical affections; and applied for complaints of this kind, bruises, &c. in liniments and plasters. With us, however, it is rarely, if ever, made use of for any medicinal purpose. The Indians prepare from it an excellent varnish. Lewis and Murray. In our shops we have only the American sorts of this resin.

ANIM., in Heraldry, a term used by the French heralds, when the eyes of any rapacious animal are borne of a different colour. The English blazon it incensed.

ANIMELLÆ, the glands under the ears, &c. called also lanícinos.

ANIMETTA, in Ecclesiastical Writers, denotes the pail or cloth wherewith the cup is covered in the eucharist.

ANIMI deliquium. See Lipothymia and Swooning.

ANIMOTHA, in Ancient Geography, a town of Arabia, according to the notitia imperii.

ANINA, a town of India, on the other side of the Ganges, according to Ptolemy.

ANINACHA, was also, according to Ptolemy, a town of India beyond the Ganges.

ANINATUM, ANIATUM, of ANITATUM, in Geography, a town of Asia under the patriarchate of Constantinople.

ANINGA, in Commerce, a root growing in the Caribbee islands, of use in the refinement of sugar.

The decoction of this root is found a more certain, as well as more innocent means of clarifying sugar, than the sublimate and arsenic used for this purpose, before the discovery of the aniga.

ANIO, or Anien, of Station (lib. i. v. 20.), in Ancient Geography, now Lt. Teverone, a river of Italy, rises in Mount Troia or Trevi, towards the frontier of Abruzzo, pales through the country of the Aequi, then separates the Latins from the Sabines, forms three large lakes in its course, and running through the Tiberine territories, it precipitates itself from a great height, and forms a rapid cataract, whence Horace " Priamus Anio." It falls into the Tiber, about three miles to the north of Rome, not far from Antemnae. The epithet, formed from the name of this river, is Anienus; and this was said to be the name of the god of the river.

ANIOIA, in Geography, a town of Italy, in the kingdom of Naples, 13 miles south-east of Nicotera.

ANJOU, so called from the ancient Anes, or Andegavi, a province of France before the revolution, about seventy miles
niles long and sixty broad; it bounded to the east by Tournai, to the south by Ypres, to the west by Bruges, and to the north by the river Maine. The capital is Bruges; besides which, the chief towns are La Fleche, Chateau-Gontier, Saumur, Briare, Beauce, Poitou, Bearn, Martigues, Villesauval, Beaucaire, &c. It has many rivers, six of which are navigable; namely, the Loire, Vienne, Thouz, Sevre, Mayenne and Sèvre. The climate is temperate, and the face of the country agreeably diversified with hills and valleys. The productions of the soil are wine, chiefly white, grain, peas and beans, flax, hemp, and various kinds of fruit-trees, particularly walnuts and apple-trees. The fine pastures of Anjou furnish rich breeds of cattle; it has also several coal and iron mines, and good quarries of flint, stone, and marble; there are also salt-petre works, and some glass-houses; its commerce principally consists of wine, brandy, grain, cattle, cloths, flax, ironmongery, &c. It formerly consisted of two counties, which, towards the end of the ninth century, were united; and it was annexed to the crown by Philip Augustus, in the year 1252. The departments of Mayenne and Loire, the Sèvre and the Mayenne, now contain a part of this province.

*Anjou Cabbage,* in Botany. See Cabbage.

*ANJOUAN,* or *AMIDAH,* in Geography, a very small island of Africa, in the Ethiopian ocean. It is situated in the Mozambique gulf, between Madagascar and the coast of Zanzibar. The soil is fertile, and it produces excellent fruits.

ANRITTE, in Ancient Geography, a people of the northern part of Marmaria, according to Tolemy.

ANISCALPATOR, in Anatomy, a mufle, otherwise called *latissimus dorsi.*

ANISE-SEED, *anisum, anisum barbatus, anisum vulgare,* in the *Materia Medica,* a medicinal seed, produced by an umbelliferous plant of the same name, which is a species of *Pimpinella,* an annual plant, growing naturally in Egypt, Syria, and other eastern countries; and cultivated for culinary and medicinal uses in France, Spain, Malta, Upper Saxony, and Thuringia. It was cultivated here in the time of Turner, in 1551; but our farmers are seldom warm enough to bring the plant to perfection. The seeds are annually imported from Malta and Spain; and the seeds of Spain, which are smaller than those of France and Germany, are accounted the best.

Anise-seeds are roundish and iriitated, flattened on one side and pointed at one end, of a pale colour inclining to green. They have an aromatic smell, and a pleasant warm taste, accompanied with a degree of sweet-taste. They totally give out their virtue to rectified spirit; the tincture is of a bright lemon colour, and agreeable taste. The spirit distilled from the filtered tincture has a light taint of the seeds, but the greatest part of their virtue is left behind in the extract, which is a pleasant, sweetish, moderately warm, and not very pungent aromatic. Inflated in water, they impart a little smell, but scarcely any taste; and in dilution they give out their whole flavour. With the water rises an effuential oil, to the quantity of an ounce or more from three pounds; this oil is of a yellowish colour, and it coagulates, when the air is not sufficiently cold, into a butyraeous white concretes; its smell is extremely durable and diffusive, but its taint is milder and less pungent than that of any other diffusible vegetable oil.

The seeds likewise yield by expression an oil of great colour, less grateful taint, and strongly impregnated with the flavour of the seeds; sixteen ounces, lightly moistened by being exposed to the fume of boiling water, are said to afford one ounce. This oil is composed of a gros, inipid, inodorous one, fitch as the common expressed oils, and a part of the effuential oil of the seed, on which the flavour depends. The effuential oil is contained in the outer thin skin of the seeds, and the expressed oil in the kernel itself.

*Anise-seeds,* which are ranked among the forty greater hot feeds, have been long employed as a carminative and aromatic; they have also been esteemed useful in pulmonic complaints, and to poxifs, like those of fennel, a power of promoting the ferceration of milk, and on this account given to nurses, in proof of which it is alleged from Geoffrey, that the colour is perceived in the milk. But their chief use is in flatulent colics, in the gripes to which children are subjected, in flatulent pains and obstructions of the breast, in weaknefs of the stomach and indigention, in diarrhœas, and for strengthening the tone of the vifeera and interciles in general; and hence they were called by Van Helmont, "*Solamen intelliatorium.*" The effuential oil, which is the only official preparation of aniseceds now directed by the Pharmacopoeias, is usually grateful to the stomach, and may be taken in the dose of twenty drops. In difficulties of the breast, the oil is preferred; but in flatulencies and colics, the seeds, in substance, are said to be more effectual. It is affected, that the oil is poisonous to pigeons. A spirituous water prepared from a mixture of equal parts of aniseed and anise-sugar, by drawing off a gallon of proof spirit from half a pound of each of the feeds, is commonly kept in the shops, and proves an elegant carminative cordial. They are useful combined with the purgatives that are administrated in flatulencies and gripes. Lewis, Newman, Murray, Bergius.

*Aniseed, barry, anisum fennelum,* is a feed thus called from the affinity it bears in smell to the common anise-feed, and the flat like figure of its capsule feminine. It is the produce of a small tree growing in Tartary, China, and the Philippine islands, which is the *Illicium anisatum* of Linneus.

It was first brought into Europe from the Philippine islands by an English mariner, named Thomas Candy, Candish, or Cavendish, in his return from a voyage round the world in the year 1601. The natives call it *damor* and *zingi;* the Europeans sometimes *fennictum Zierovay,* or Chinesefennel; *botanills, anisum Indicum, anisum perumum, anisum exicum Philippinarum infarum, cardamum Silverfay,* &c. In small and talle this resembles the common anise-feed; but with the aromatic taint is combined a sweetness, and in both respects it is stronger. The capsules or bunks affect the tongue more than the feed, but the flavour of the seeds is accompanied with a greater sweeteness. The seeds afford in dilution with water, the largest quantity of effuential oil; and the capsules yield with spirit, the molt acid, renoous extract. The oil is more limpid, and more fragrant, than that of the common anise-feeds; and the spirituous extract is much warmer and more pungent: for medical purposes, the capsules and seeds are bruised together.

Its virtues are of the same kind with those of the common anise feed, only that it is sweeter, more grateful, penetrating, and aromatic. It is reputed a general cordial and strengthening, and used for this purpose in the eastern countries, and in some parts of Europe; but it has not been received in practice among us, and is rarely found in the shops.

The Chinese use it in the preparation of their tea, and they chew it for sweetening their breath; and after their example, the Dutch also use it in this liquor, pretending it makes it more pleasant.

The wood is also imported into Europe, where it is employed in works of marquetry and mosaic; it is also called *anil.* Lewis, Newman, Murray, Carthener.

ANISIFOLIUM, in Botany. See Lime.*
ANK

ANKSICALM, a name given by some naturalists to the *Sertularia myriophyllum* of Linnaeus; myriophyllum pelagicum of Zanich. Girard, &c.; it is, however, a false notion of C. Bohn, and plicifrons' tail carinale of Ellis. See *Myriophyllum, Sertularia*.

ANKOMARATHUM, in Botany. See SCANDIX.

ANKUM Affricanum. See DURON.

ANKUS, or AWARUS, in Ancient Geography, a river of Norica, which falls into the Danube.

ANKATA, a town of Arabia Petra according to Polyaenus.

ANTIGORIS, a town of Hispania Bética. mentioned by Livy (b.i. xxv. e. 32.), when describing the campaign of Cornelius Scipio, who advanced to this town, and encamped in the fight of the enemy, from whom they were separated by the river.

ANIUS, a river called Roes by Stephan. Dyöz.; and by Livy, Aros; which discharges itself into the Adriatic to the south of Apollonia.

Anius, Lugo Salutatoris, a place of Campania, near Naples.

ANIZA, in Geography, a town of Arabia, 200 miles north-west from Jamana.

ANIZY LE CHATEAU, a town of France, in the department of the Aisne, and chief place of a canton, in the district of Chauny, eight miles north-east of Soissons, and ten south-east of Chauny.

ANKER, Anchor, a liquid measure chiefly used at Amsterdam, &c.

The anker is the fourth part of the awen, and contains two shaks; each shak consists of sixteen manges, the mangle being equal to two Paris pints.

Anker, in Geography, a river of England, which rises about one mile and a half south-east of Hitchley, in Leicestershire, and joins the Tam at Tamworth, in Warwickshire.

ANKEVEEN, a town of the United Netherlands, in the State of Utrecht, one mile and a half south-east from Nærdun.

ANKLE, Joint of the, in Anatomy, is made by the apposition of the articulars, or upper bone of the foot, to the lower part of the tibia and fibula, which, for that purpose, tie together by a strong band of ligaments both before and behind.

The tibia and fibula lead down two processes, called malleoli, which are applied to the sides of the ankle, support it in its situation, and render the joint very secure.

The form of the bones allows them to be moved chiefly forwards and backwards, so that the joint is accounted a ginglymus. When the back part of the ankle is moved forwards, the toes are pointed to the ground, and the foot is said to be extended; in the contrary position, it is said to be bent upon the leg.

When the joint is bent, the form of the anklebone fits exactly and corresponds to the space in which it is received between the tibia and fibula, that no motion can take place; but when it is extended, the narrow back part of the anklebone coming forwards between the malleoli, a space exits between the bones, and a motion of the anklebone from sole to side (such as takes place in directing our steps) is permitted.

In this joint we have the usual apparatus of cartilages to cover the ends of the bone; a capsule to contain the synovia; portions of fat, denominated synovial glands; and strengthening ligaments to bind the bones together (see Joint, Structure of). The capsule of that joint appears in front a little loose, so that it can be pinched up with a pair of forceps, and here also are seen those portions of fat which have been accounted synovial-glands; behind, the capsule is covered by bands of restraining ligaments which conceal it, and strengthen that part of the joint; but the principal strength and restraint to the improper motions of the joint is found, as is common in ginglymoid articulations, at the sides. The internal lateral ligament (ligamentum deltoides malleoli interni of Weithbrecht), which is radiated, extends from the point of the malleolus externus to the articularus and os calcis. The external lateral ligament (ligamentum malleoli externi perpendicularis of Weithbrecht), extends from the point of the malleolus externus to the os calcis. There are also two other bands of ligaments passing from the fibula to the articularus, one in front, and the other behind the last-mentioned ligament. Weithbrecht mentions these under the names of ligamentum malleoli externi, anterius & posterius. These ligaments are in a state of great tension, and prohibit any motion when the joint is bent; but are relaxed, and allow of that motion which is useful in the direction of our steps when it is extended.

ANELE, Rotation of, in Surgery; see Luxation and Dislocation.

ANKUN, in Geography, a town of Germany, in the circle of Upper Saxony and principality of Anhalt; is so near to Zerbit on the west, that it is denominated a suburb to that city, but has a corporation of its own.

ANLERY, a town of France, in the department of the Nivore, and chief place of a canton, in the district of Decane, 15 miles call from Nevers.

ANN, Cape, is the point of the land, in the town of that name, or Gloucester, which forms the north side of Massachusetts's Bay, as Cape Cod does the south side. It was so named in honour of Ann, consort of king James I. N. lat. 42° 45'. W. long. 75° 17'.

ANN, St. is the chief town of the province of Parana, in the eastern division of Paraguay, in South America.

ANN, St., a lake in Upper Canada, to the north of Lake Superior, which feeds its waters north-east into James's Bay, through Albany River. Its north-eastern point lies in N. lat. 50°. W. long. 83°.

ANN, Port, in the state of New York, lies at the head of Batteyanus navigation, on Wood Creek, which falls into South Bay, Lake Champlain, near Skeneborough.

Ann's, St., a port on the south side of Cape Breton, accommodating fishing-reffels, and lying on the north-west side of the entrance into Labrador Lake. N. lat. 47°. W. long. 66°.

Ann's, St., a small town on the river St. John's, in the province of New Brunswick, about 80 miles from St. John's, and almost opposite to Frederic-town. It is at present the seat of government.

Ann's, St., sometimes called Finns, lies at the bottom of a bay, on the north-east part of Bonaventure island, in the Gulf of St. Lawrence. N. lat. 5° 50'. W. long. 65° 20'. This bay, called St. Ann's Bay, is a very considerable bay of the Eastern Ocean, opposite to St. Michael's island. It has a fine and open entrance, a good depth of water, and fine anchorage.

Ann's, St., a bay of Campenelly, in the gulf of Mexico, in N. lat. 18° 10', and W. long. 92° 27', nearly north-west from Cape Conceded.

Ann's, St., a harbour on the north coast of the island of Jamaica, in N. lat. 18° 54', and W. long. 77° 12'; it is a good anchoring-place, and the largest sugar ships may lie with their sides close to the wharf.

Ann's, St. Point, is to the lardboard of the entrance into Milford Haven, on the coast of Wales.
ANN, St. Point, is also in the Strait of Magellan, in that part which leads to the south, and on the west side of it, on the Patagonian shore, four leagues from Cape Fram-ward, the most southerly point of the American continent. Here are good watering, fishing, and sailing.

ANN, St. Port, display, or Killoogly, lies on the east coast of Ireland, between Carlingford and Strangford.

ANN is one of the three principalities into which Arabia Deserta is divided.

Ann is also one of the chief cities of the above principality, and was formerly a famous market town, though it is now not much frequented. It is situated in N. lat. 35° 37', E. long. 42° 10', on the river Euphrates, in a fruitful and pleasant soil, and has two streets which are divided by the river: that on the Mesopotamia side is about two miles long, and thinly peopled by tradesmen; that on the opposite side is about six miles in length, and this part is inhabited by the principal people. Every house has some ground belonging to it, which produces a variety of excellent fruit-trees, as lemons, oranges, citrons, quinces, figs, dates, pomegranates, and olives: some of the flat ground is covered with corn and other grain, which it yields in great abundance. The city is the common rendezvous of all the robbers that infest the country; here they hold their council, and settle their plans of depredation, and from hence they diffuse themselves into all parts of the desert. This is one of the great thoroughfares through which the caravans pass to and from Aleppo, Tripoli, Damascus and Bagdad, and some other parts of the Turkish empire; and it is with difficulty, such is the character of the inhabitants, that the Turks and the janizaries, who are kept here, can levy the tribute imposed by the Turks on all the commodities carried through this city. Mod. Un. Hist. vol. xxxvi. p. 449.

Anna, in Ancient Geography, is a town of Palesine, to the north of Jericho. Josephus calls it Anna; and Berkelius thinks it is the name with Kana.

Anna, a town placed by the periphery of Seculax on the coasts of Lydia; supposed to be Annia, or Anna, which belongs to Ionia or Caria.

ANNABERG, in Geography, a mine town of Germany, in the circle of Erzgebirg and electorate of Saxony, five miles south-west from Wolkenstein. The occupation of its inhabitants consists partly in mining, but chiefly in the lace-trade. The silver-mines of Schreckenberg are not far from the town.

ANNABI, the name of mountains in Independent Tartary, supposed by M. d'Anville to be those of Alat; but they are evidently those of Alak, called by some Mufari, on the north of Little Buxaria.

ANNABON, or Annabon, or Happy Tear, the name given to an island of Africa by the Portuguese, who discovered it on New Year's Day, in 1526. This island lies to the east of St. Matthew, in S. lat. 17° 50', and long. 57° 20', 25 leagues south from St. Thomas island, and from Cape Lopez Gonzak. According to Pyrard, it is five or six French leagues in circuit; but Baudrand makes its compass ten leagues. It has two high mountains, which being almost always covered with clouds, occasion frequent rain. It has a number of fertile valleys, producing Turkey corn, rice, millet, potatoes, yams, bananas, pine-apples, citrons, oranges, lemons, figs, tamarinds, and other delicious fruits. This island also affords oxen, hogs, sheep, goats, and poultry, in great plenty, and abundance of fish; but the only mercantile production is cotton, which is said to be equal to any produced in India; the quantity, however, is small. The governor is a Portuguese; but the majority of the inhabitants are natives, who pay him implicit obedience, and are bidded in their attachment to the Roman Catholic faith.

There are two rocks on the south-east end of the island, which are dangerous to shipping: they are inhabited by a number of birds, to sate, that the fabrics frequently feed and catch them with their hands. Ships, falling for Europe from the Cape of Good Hope, frequently make this island; and the right road for them is on the north-east side, where they may anchor in six or seven fathoms water, and good ground.

The climate is wholesome, and the air clear and serene. Every part of the island is watered by pleasant brooks and fresh-water springs, which, in all high tides, become brackish: the banks are covered with palms, from which the inhabitants obtain their wine by incision; and among other fruits, this island produces a species of black nut of a purgative quality. Most of the dwellings on this island are converted: the inhabitants are mainly clothed: the women have the upper part of the body naked: they carry their children on their backs, and buckle them over the shoulder; the men wear a linen-girdle round the loins, with a small flap before. Mod. Un. Hist. vol. xi. p. 459.

ANNABURG, formerly called Lochea, a town of Germany, in the Electorate of Saxony, and in a prefecture of the same name. This town is situated on an island, and contains a citadel which Anne, consort to the elector Angilinus, caused to be rebuilt in the year 1573; whence the name. N. lat. 51° 42'. E. long. 13° 34'.

Anna Commont, in Biography, was the daughter of the emperor Alexius Comnenus I. by his wife Irene, and so little distinguished by her talents than her rank. She was born at Constatinople in 1063, and devoted herself to the study of literature and philosophy, by which she acquired the reputation of the most learned lady of her age. Upon the death of Constan
tine, the son of Michael Ducas, her intended husand, the married Nicephorus Bryennius, a young nobleman of distinction; on whose behalf she joined with the empress Irene in soliciting her father, in his last illness, to disinherit his son. When this scheme failed, she excited a conspiracy for deposing her brother; and upon her husband's impeding its success, she lamented that nature had miscalculated the fates, as he ought to have been the woman. Her plot was defeated; and Anna was punished by the confiscation of her property, which, however, was restored to her by the emperor; but she lost her whole influence at court. Having lost her mother full, and afterwards her father in 1158 (see Alexius I), and her husband in 1157, she endeavoured to soothe her mind in retirement, by composing a history of her father's reign; a work that was finished in 1148, full extant, and preferred in the collection of Byzantine historians. "This history was written," says Mr. Gibbon (Hist. vol. ix. p. 83, 84), "with an elaborate affection of rhetoric and science, that betrays in every page the vanity of a female author." Nevertheless, it forms a useful contrast to the degrading and partial statements of the Latin historians. Zonaras gives her an excellent character, and informs us, that she engaged vigorously in the pursuit of learning; and had a peculiar attie elegance in her style; and being endowed with a genius suited to elevated contemplations, she improved her natural abilities by intense study, for she was perpetually reading, or conversing with men of learning. Gen. Dict.

ANNACH, in Geography, an island on the west coast of Ireland, about five miles in circumference, between the isle of Achill and the main land of the county of Mayo. N. lat. 53° 58'. W. long. 9° 39'.
ANN

ANNALIS, in some Middle Age Writers, denotes a day held every year in commemoration of the dead. In which sense annals amounts to the fame with what is otherwise called anniversarium. 

ANNALIS is more particularly applied to the masses celebrated, during the space of a year, for the dead.

ANNALES abaxi, in the Civil Laws, denote books wherein the acts and proceeding of a whole year were contained. In which sense annales stand opposed to families, wherein the acts and constitution of six months were contained. See ANNALES.

ANNALIS, in Middle Age Writers, denote yeare, or young cattle of a year old, or under two.

ANNALIS also denote a kind of rent, or annual revenue.

ANNALIS also denote a kind of rent, or annual revenue.

ANNALIS aliquot, in the Civil Laws, denotes an action which may be put in practice any time within the year. In the like case we meet with annale decreatum, or negatum, annalis refiuis, &c.

ANNALIS abaxi, in Roman Antiquity, the nail which the pretor, conful, or dictator, fixed every year in the wall of Jupiter's temple, on the ides of September, to shew the era or number of years from the building of Rome. This custom was afterwards changed, and the years were reckoned by the consuls.

ANNALIS excepitio, a kind of privilege anciently granted the people of Italy, that whoever had made a contract could not be compelled to the performance or payment of what had been
been agreed on within the year. Some extend this privilege so as to render it still more grievous, by computing the year exclusive of all holidays.

ANNALS Lex, a law fixing the age for enjoying the different offices at Rome, which was first made by L. Volusius or L. Julius, a tribune of the commons, A. U. 774; and hence his family had the surname of Annalis. Liv. lib xl. c. 47.

ANNALS, an historical account of the affairs of a state, digested in the order of years. The difference between annals and history is variously assigned by various authors. Some say that history is properly a recital of things which the author has seen, or has been a bystander to. What they build upon is, the etymology of the word; history is the Greek, signifying the knowledge of things present; and, in effect, more properly signifies to see. On the contrary, annals, say they, relate to the transactions of others, and such as the writer never saw.

Of this opinion the great annalist, Tacitus himself, seems to have been; because the first part of his work, which treats of former times, he calls annals; but when he comes down to his own times, he changes his title, and calls it history. According to Sempronius Afflilio, annals are a bare relation of what passes each year; whereas history relates not only to the transactions themselves, but also to the causes, motives, and springs of them. The annalist merely states his facts, but the historian reasons and defends on them.

Of this last opinion Cicero appears to have been, because when speaking of annalists, he says, Chnam diversi laudem patim eff breviolatam, non concursorum verum, sed tantum narraturum. He adds that history, in its original, was the composition of annals. Cicero relates the origin of annals: to preserve the memory of transactions, the pontifex maximus, says he, wrote what passed each year; and exposited it on a table, in his own house, where every one was at liberty to read it. This they called annales maximus; and this custom was kept up till the year of Rome 620. Annales maximi confudii of eighty books. They were most of them destroyed in the burning of the city by the Gauls. After the time of Sylla the pontifices seem to have discontinued the custom of compiling annals; but several private persons composed historical accounts of the Roman affairs, which, from their resemblance to the pontifical accounts in the simplicity of their narration, they likewise entitled annales; as Cato, Pictor, Piso, Hortensius, and Tacitus. The like annals were kept from the earliest ages by the Egyptians, Babylonians, Perrians, Chaldians, &c.

The Annals of Grotius is a book finely written, and contains excellent materials. Grotius is not so particular as Strada, but more profound, and comes much nearer to Tacitus.

ANNAMATIA, in Ancient Geography, a place of Lower Pannonia.

ANNAMETHUS, an island in the Indian ocean, according to Pliny, who makes it depend on Arabia Felix.

ANNAMOOKA, in Geography. See Annamooka.

ANNAN, the capital of Annandale, in Scotland, is a small town, and royal borough, pleasantly suteuate on a river of the same name, which abounds with salmon, and is navigable, within half a mile of the town, for vessels of 250 tons burden. The river at the town is crossed by a bridge of five arches. It was formerly a place of trade, but lying contiguous to the English border, and in the track of their western incursions, it was often pillaged, destroyed, and burned: the last of these destructive inroads was in the reign of Edward VI.; when Lord Wharton, president of the Marches, burned the town, and demolished the church. In this town, there was formerly a castle which was built by the Bruces, after they became lords of Annandale. The export-trade of Annandale consists of grain; and a building for carding and spinning of cotton has lately been erected, and there are some appearances of increase. N. lat. 54° 37'; W. long. 4°.

ANNANDALE, William, in Biography, a Scotch episcopalian, was the son of William Annand, minister of Annan, and born in that town in 1615. His father was obliged to quit Scotland in 1653, on account of his loyalty to the king, and attachment to episcopal government; and he was admitted, in 1651, a scholar in the University of Oxford. Having completed his education, and distinguished himself by his loyalty and zeal for episcopalianism, he removed to Scotland in 1663; and in 1676, he was nominated to the deanery of Edinburgh. He died in 1689, and was interred in the Greyfriars church at Edinburgh. The titles of his works, which he wrote in English, are as follows, &c. "Fides Catholica," or, The Doctrine of the Catholic Church, in Eighteen Great Ordinances, &c. Lond. 1661.-2, 4to. "Panem Quotidianum!" or, Daily Bread, in Defence of Feft Forms of Prayer. Lond. 1662, 4to. "Pater Noster!" or, Our Father, an Explanation of the Lord's Prayer. Lond. 1670, 8vo. "Mysterium Pætatis!" or, The Mystery of Godliness; Lond. 1672, 8vo. "Doxologia." Lond. 1672, 8vo. "Danitalis;" including "Lex Quaedam," or, The Honour of Magnificy; and "Durom Unitas," or, The Agreement of Magnificy and Minificy, &c. Bing. Brit.

ANNANDALE, in Geography, a district or division of Dumfries-shire, in Scotland, the capital of which is Annan. Upon the death of David I in 1153, the lordship of Annandale descended to Thomas Randolph, earl of Murray; and by his sister Agnes, was transferred to the Dunbars, earls of March; after their forfeiture, it passed to the Douglases, who lost it in the same way; and from them it went to Alexander, duke of Albany, who lost it by his rebellion against his brother king James III. From this time, it continued in the hands of the king, and was the great key of the western border. This district is a fertile vale, about 24 miles long and 14 broad; it was formerly, on account of its vicinity to England, subject to depopulation, so that it was left uncultivated; but of late, the culture it has undergone has given it a new aspect. Annandale formerly constituted part of the Roman province of Valeria; and as the wall of Severus terminated here, it abounds with Roman stations and antiquities. Some of the Roman camps are preserved; and the traces of a military road are visible in different parts of the country. Annandale is a marquessate belonging to the Johnstouns, and the chief of that name.

ANNASO, a firming fort of Italy in the duchy of Milan, suteuate on the river Tanaro; twice taken by the French, and restored to the Duke of Savoy in 1706. N. lat. 44° 46'; E. long. 8° 30'.

ANNAREE is a Portuguese factory, lying on the western coast of the penisula of India, 21 leagues nearly S. from Goa.

ANNA PERENNA, in Mythology, the fitter of Dido; of whom fable relates, that the fied with Anaxes to Italy, where she fell a sacrifice to the jealousy of Lavinia, and was drowned by her in the river Numicus, whence she was denominated the Numician nymph. It is certain, that the Carthaginians and Romans paid her divine honours. It is said, that the surname Perenna was derived, "a perpetuam cultum," from the perpetuity of her worship. The feast of this deity was celebrated by the Romans in the ides of March, on the banks of the Tiber; on which occasion the people
people devoted themselves to every kind of amusement and pleasure. Ovid refers to this goddes, in the third book of his Fasti. Some writers maintain, that Anna was the moon, because its revolutions formed "annum," the year.

ANAPOLIS, in Geography, a river of Nova Scotia, rises in the city, and passes into the bay of Fundy, through the basin of its own name; on the south side of which, at the mouth of the river, stands Annapolis Royal. The tide flows up this river thirty miles; and it is navigable for ships of any burden 10 miles; for those of 100 tons, 15 miles; and for boats, within 20 miles of Hotham.

ANAPOLIS, a county on the above river, adjoining to King's County, having five towns, viz., Wilmot, Granville, Annapolis, the chief towns Clare and Mo-nickton, and chiefly inhabited by Canadians, Irish, and New-Englishers.

Annapolis Royal, called by the French Pari Royal, when a colony was settled here by M. de Ponts in 1635, is the chief town of a county of this name, and stands on the south side of the river and bay of Annapolis.

This is reckoned the finest harbour in the world: it is two leagues long, and one broad; and has a small island called Goat Island, almost in the middle of the basin, which is said to be large enough to contain several thousand ships; its depth of water is so near less than four or five fathoms; the bottom is good; and ships may be secured from all winds. The entrance, however, is difficult, so that only one ship can pass in or out at a time, and it must go stern foremost, on account of the strong current and tides; the fogs also are very great here. The gulf through which ships pass into the bay is about three quarters of a mile wide and about one and a half long; and on each side the land is rocky and mountainous. The town is not large, but has some very handsome buildings. It is fortified, and cannot be easily attacked except by bombardment. The fort in its present state is capable of containing about 100 men. Furs are here exchanged by the Indians for European goods. N. lat. 45°. W. long. 63°. 5'.

Annapolis is also the chief town of Ann-Arundel county, and the capital of the state of Maryland. It stands at the mouth of the Severn, 30 miles south of Baltimore, 72 miles north from the federal city, and 132 miles west from Philadelphia. It was formerly called Severn; and in 1604, it was made a port and town. It is situated on a peninsula formed by the river and two small creeks; and affords a beautiful prospect of Chesapeake bay, and the eastern shore beyond it. This town is the wealthiest of its size in the United States. The houses, about 300 in number, are spacious and elegant, indicating great wealth: the flat-house is a noble building, and stands in the center of the city, whence the streets diverge in every direction. N. lat. 38° 50'. W. long. 75°. 8'.

ANN-ARUNDEL, the name of a county in Maryland, which lies between Patapsco and Patuxent rivers, and has Chesapeake bay to the northward. Its chief town is Annapolis. This county contains 22,595 inhabitants, of whom 10,131 are slaves.

ANAT, or Ann, in Scots Law, denotes half a year's stipend, which the law allows to the executors of the ministers of the church of Scotland, over and above what must due to the minister himself, for his incumbency.

Annat, Francis, in Biography, a French Jesuit, confessor to Louis XIV, was born at Rouen, in 1590. Having taught philosophy six years, and theology seven years, in the University of Toulouse, he was invited to Rome to be censor-general of the books published by the society, and theologian-general. On his return to France, he was distinguished by successive offices of honour to which he was appointed, and at length he was made confessor to the king, in which post he continued for 16 years; nor was he allowed to retire from court till within about four months of his death. It is said, though not with much authority, that when Madame de la Valiere was taken into the royal favour, he went to lay down his office. During his long connexion with the court, he never employed his interest in providing for his poor relations. He was chargeable, however, with the crime of persecuting those who professed new opinions, and particularly the Jansenists; and he has been reproachfully denominated "The Flail of Hereford." He died at Paris in 1679. His writings, chiefly on the controversy with the Jansenists, are numerous; and the principal of them were collected in three volumes, and printed at Paris in 1666. Gen. Dict.

ANNATES, Annata, in Ecclesiastical Writers, denote a year's income, due to the pope upon the death of any bishop, abbot, or parish-priest; and to be paid by his successor.

Annates are also called from the Latin annum, year; because their rate is after the value of one year's purchase; and they are the same with what of later days we call primitiae, or first-fruits; with this only difference, that first-fruits with us are paid to the king.

The invention of annates is ascribed, by a late writer, to Anthonin, bishop of Ephesus, who exacted from all bishops consecrated by him, a sum proportionate to the annual revenues of their fiefs. The council of Ephesus, held in 429, condemned this exaction, but not until Anthonin was dead. It was long after that annates got footing in the western church. The time when they were first introduced is very obscure. Clement V. is said to have been the first pope who imposed annates on England for three years, to which Edward I. immediately consented; but the parliament boldly opposed it; the pope's bull was declared abusive, and the king revoked his consent. Polydore Virgil (Inv. et Rer. lib. viii. c. 2.) says, that the council of Vienne, which was held in 1311, under Clement V., made an effort to suppress the annates; a circumstance which shews they subsisted in his time. John XXII. the successor of Clement, published a bull, whereby he referred the first year's fruits of all ecclesiastical benefices that continued vacant for three years, archbishops, bishops, and abbesses, being exempted; but by degrees the first fruits were exacted, without observing whether the benefices were vacant three years or not. Benedict XII. who succeeded John, followed his example; and it was also imitated by succeeding popes; but the authority of their bulls extended no farther than their own lives. In 1399, during the feิตism of the antipopes, Boniface IX. inflicted the first bull for establishing perpetual annates; not merely to be granted as a charitable supply upon extraordinary occasions, but as a matter of right annexed to the dignity of the sovereign; so that he decreed what was local and particular, to be universal and perpetual. Before his time, the annates were not fixed, and the clergy often refused to pay them; but afterwards, the tax was not only imposed at pleasure, but frequently doubled, tripled, and quadrupled. However, it was always a grievance complained of and remonstrated against both by the people and the clergy. There were even many who condemned annates; and the secular princes frequently objected to the payment of them, forbidding any money to be carried out of their dominions on this account. See Leflont's Hist. of the Council of Constance, vol. ii. p. 147. &c. Nic. de Clamanges, A Maffi, Gallechius, Campegius, and Finamundus Cordubensis, have written expressly concerning annates.

Matthew Paris, in his History of England, for the 10th year
year 746. relates, that the archbishop of Canterbury, in virtue of a grant or cession of the pope, received annates of all the benefices that became vacant in England. Before this time, among the laws of King Loth, who began his reign in the year 712, there is an order for the payment of them. But, in after-times, the holy see thought fit to take these away from the bishops and archbishops, and appropriate them to themselves. And from the popes, the parliament under Henry VIII. took them, putting an act in 1532, against levying them, and gave them to the crown. 25 Hen. VIII. cap. 20. Finally, queen Anne reduced them to the church by appropriating them to the augmentation of poor living.

See FirstAI.

ANNATTA, in Geography, the name of a river and bar in the island of Jamaica, nearly north from the town of Kingston, on the north side of the island. N. lat. 18° 32'.

W. long. 76° 46'.

ANNATTON. See AYRATON.

ANNE, in Biography and History, queen of England, was the second daughter of king James II. by his first wife Anne Hyde, and was born in 1665. In 1683, she married prince George, brother to the king of Denmark, by whom she had several children, though none of them lived to maturity. Upon the progress of the king of Orange, and the retreat of the king, prince George, who was under the influence of lord Churchill, afterwards duke of Marlborough, as well as some other persons of distinction, retired to the camp of the advancing prince. When this news reached London, the princess Anne, dreading the king’s displeasure, withdrew herself, in company with the bishop of London and lady Churchill, and fled to Nottingham. The intelligence of her flight was the occasion of great distress to her father; because he foresaw, in this incident, the total expiration of his royal authority; and because he was abandoned by a child, whom he had always regarded with the most tender affection. “God help me,” cried he, in the extremity of his agony, “my own children have forsaken me!” Upon her disappearance, so violent were the prejudices that prevailed, the unhappy father was thought to have put her to death; and if the truth had not been fea-lionly discovered, the populace, and even the king’s guards themselves, might have been engaged, in revenge, to commence a massacre of the priests and Catholics. Upon the settlement of the crown, in 1689, on the prince and princess of Orange, it was enacted by the convention-bill, that the princess of Denmark should succeed after the death of the prince and princess of Orange. Accordingly, she ascended the throne, on the death of king William III. in 1702. The splendour and importance of her reign were owing more to the circumstances of the times, and to the influence of her ministers and favourites, than to any display or exertion of talents on her own part: as she possessed no energy of mind, and her disposition was meek and timid, the surrendered herself to the direction of others, and distinguished herself merely, or principally, by a strong predilection for Tory principles in church and state. “Mildness, timidity, and anxiety,” says Dr. Somerville, “were constitutional ingredients in the temper of this princess; and to their influence chiefly we may ascribe most of the interesting occurrences in her government and private life.” Under the guidance of the counsels of the duchess of Marlborough, to which she had been accustomed to surrender herself in the earlier period of her life and reign, she pursued the projects for reducing the power of Louis XIV. of France, which her predecessor had begun; and after a series of successes, more glorious to her arms than profitable to the nation, the war closed by the peace of Utrecht, in 1713. Much more important to the prosperity of the nation, than all the brilliant successes of Marlborough’s campaigns, was the union of England and Scotland, which took place on the 1st of May 1707. The contention of parties was very violent during almost the whole of the queen’s reign; and more especially towards the close of it, when it was apprehended that the queen and those in whom she confided, wished to secure the succession to her exiled family; and when the evidently favoured the Tories in such measures, as justly alarmed the whigs and the friends of constitutional liberty. Of this kind was the Somersett-Bill, which, after violent debates during its progress through both houses, obtained the royal assent on the 25th of June 1714. But the death of the queen, August 17, in the same year, the very day in which this bill was to take effect, rendered it in a great measure ineffectual. The queen’s death, in the 50th year of her age and 13th of her reign, was occasioned by a drapery, contracted or aggravated by her habits of living. Although Queen Anne had a strong mind, she was not deficient in understanding; and her private character was amiable. She has been charged, however, by some, with the crime of deserting her father in his distress. This charge has been obviated by the peculiar circumstances in which she was placed, and by the state of the nation, when her husband, by his example, countenanced this measure. “The habit (says Dr. Somerville) of a blind deference to the advice of lord and lady Churchill, and a conscientious anxiety for the Protestant religion, exposed to the extremity of danger, lifted the emotions of filial tenderness, in a moment of singular perplexity and agitation, and precipitated her into an action which would have been inexcusable, if it had been the result of cool deliberation, and originated from motives of interest and ambition.” In the management of her fortune this princess was economical, and yet she was not deficient in charity; and she even exceeded it in her bounty to her favourites. In the discharge of religious duties, she was regular and exemplary; and she manifested her zeal for the safety and prosperity of the church in various ways; some of which, indeed, were reckoned as impolitic and unjust; and particularly by augmenting, at her own expense, the livings of the poor clergy. See AUGMENTATION. “She possessed a considerable degree of taste for the fine arts, adorned herself with music and painting, and delivered her public speeches with a melodious propriety, that charmed the ears of her audience. The deceitfulness of grandeur, as a criterion of happiness, was remarkably verified in the life and reign of queen Anne. We beheld a nation rising, under her auspices, to the summit of prosperity. Whilst signal successes crowned her military exertions abroad, agriculture, commerce, manufactures, science, and literature, advanced with rapid steps at home; every event, and every improvement, which contribute to the opulence, the power, and the renown of a nation, distinguished the reign of queen Anne as the most propitious and brilliant recorded in the annals of Britain. But when we follow this princess into retirement, and survey the incidents of her private life, how much are we struck with the distinction between external grandeur and personal felicity! She survived a numerous family of children; the Duke of Gloucester, defined by the act of settlement to succeed her, died to the age of 12, and exhibited early blossoms of every accomplishment that could elevate the hopes of a nation, and delight the heart of a parent. The possession of a crown, held upon the condition of ratifying the degradation and exile of her own family, must have cost her many a pang, which she durst not impart to her most confidential friends. Whilst looked up to as the first potentate in Europe, and loaded with congratulations upon the successes of her arms, she was a slave in her own house; and subjected to daily
daily affronts and mortifications, from the insolence and usurpations of her own servants. Emancipated, at length, from her chains, she only entered upon a new scene of vexation and trial; and all her remaining days were embittered by the jealousies of her people, the turbulence of faction, and the contentions and outrages of a distracted cabinet. By her subjects, whose prejudices coincided with her own, she was honoured with the title of the "Good Queen Anne." Without attaching much merit to the queen herself, as either a patron or promoter of literature, the period of her reign was distinguished as a kind of Anguillian age of English learning, on account of the number of admirable and excellent writers who flourished at this time.

Ann of Austria, queen of France, the daughter of Philip III. king of Spain, by Margaret of Austria, was born in 1601, and married to Louis XIII. in 1615. From this connexion, she did not derive much happiness; for Cardinal Richelieu contrived to persuade the king that she was concerned in conspiracies against his life. Sufpidions were then excited, which rendered it necessary for her to answer interrogatories; and on her confession, to ask pardon of the king, and promise to alter her conduct. When the king died, in 1643, she was declared sole regent during the minority of her son Louis XIV. Her whole confidence was reposed in Cardinal Mazarin; who ruled with such despotism, that discontent arose, which produced a civil war, and obliged her to fly with her son from Paris, and to solicit the affiance of the great Condé. In the conflicts and vicissitudes of her reign, the queen manifested great firmness; at length, the young king affirmed the rights of government, in 1661; and the queen retired, to pass the remainder of her life in pious exercises. In 1666, the death of a cannon, after having endured the pains of it with exemplary patience. In early life, the court of France was much indebted to her for its characteristic politeness and amenity. Nouv. Dict. Hist.

Anne Boyle, queen of Henry VIII. of England, was the daughter of Sir Thomas Boyle, employed by Henry in various embassies, by a daughter of the duke of Norfolk; and born in 1507. At an early age she was taken to Paris, and resided there for a considerable time. Here she acquired a vivacity of manners and conversation, which was further set off by her personal charms. Henry, whose attachments were very variable, was enamoured when he saw her; and as he could not obtain the favour he solicited on any other terms, he hastened to seek a divorce from Catharine of Aragon, and whilst the grant of it was delayed, he married Anne Boyle in November 1532; and publicly declared her queen in the April following. In September she was delivered of a daughter, who was afterwards the famous queen Elizabeth. Anne Boyle had imbibed the principles of the reformers during her residence with the duchess of Alençon; and her influence was for some time of usefully employed in widening the breach between the king and the court of Rome; and in overthrowing the power of that haughty favourite cardinal Wolsey. But her enemies were invidious in their endeavours to supplant her; and the king's new passion for lady Jane Seymour, tended to inflame those jealousies of her conjugal fidelity which the jealousy of her carriage had excited, and in some measure justified. Having been accused of adultery with several officers of the household, and with her own brother, lord Rochfort, she was brought to her trial for high treason, found guilty on very insufficient evidence, and sentenced to be beheaded: the sentence was executed in May 1536. At her death, the confined indigence, but perished in denying any serious guilt. Her letter to the king, written after her condemnation, enhances her character and understanding in our estimation. Many calumnies have been circulated against this queen, by the bigotry of the Catholics, on account of the service she rendered to the cause of the Reformation. It is not possible to ascertain her innocence with regard to the crime charged against her; but as an approved writer of verses, "it seems much less certain that she was criminal, than that her husband was a capricious and bloody tyrant." Burnet's Hist. Reformation, vol. iii. p. 112. Home's Hist. vol. iv. p. 79—149.

Anne, St., of Sleswick Holdyn. This order was instituted in the year 1378, by Charles VI. emperor of Ruffia. The badge of the order is a cross, composed of four large rubies set in gold, the angles between the cross set with diamonds, and on the centre a medallion with the figure of St. Anne. It is worn pendant to a broad crimson velvet ribbon edged with yellow. The star of the order is of silver, with eight equal points or rays; on the centre a red cross on a gold ground, with the following motto written on a red ground, AMANTIUM JUS- TITIAM, PIETATEM, FIDEAM.

Anne's, St. Bay, in Geography. See St Ann's.

Anne's, St. Bay, is a bay on the coast of Labrador, in North America, between Davis's inlet on the north, and Cape Charles, which is the north point of the entrance into the straits of Belleisle, on the south. It is about N, lat. 54°, and W. long. 57°.

Anne's, St. Cape and Island, lie south by east from Sierra Leone river, on the west coast of Africa. The cape is the north-west point of the island, which is a narrow strip of land, near 80 miles in length from west by north to east by south. The inner passage within the channel is called Ferno of St. Anne.

Anne, St. Larfana, or Rota, is one of the Ladrones, or Marianne islands, at the distance of seven leagues from Guam, and is about 45 miles in circumference, situate in N. lat. 14°. This is a pleasant and fertile island, finely diversified with rising grounds, covered with lofty trees, and beautiful plains of a rich black soil, and very well watered. There are two excellent ports, one on the south, and the other on the north-west side of the island.

Anne Charies, Island and Road, lie on the east side of St. Thomas island, under the equator, and 40 leagues west from the mouth of the river Cabon, on the continent of Africa. This island is only a great rock, and the road is under its lee.

Anne's, St. Gulf, is round Cape Blanco, the most westerly point of Africa, which forms a peninsula, as this gulf runs up northerly within the land, which bears away towards the east. It is a large bay, with good sandy sound.

Anne, Cape Queen, lies on the coast of Greenland, in the Northern Ocean, in N. lat. 64° 15', and W. long. 74° 35'.

Anne's, Queen, Forland, lies on the northern main from Hudson's Straits, in N. lat. 64° 8', and W. long. 74° 41'.

Anne's, St. Harbour, is in the island of Martinico, and has good anchorage and a safe port.

Anne's, St. in Ecclesiastical History, is a festival of the Christian church, celebrated by the Latins on the 26th of July; but by the Greeks, on the 5th of December. It is kept in honour of Anne, or Anna, the mother of the Virgin Mary.

Annealing, or as it is popularly called, Nealing. See Nealing.

Annebaud, in Geography, a town of France, in the province of Normandy, situate on the Risle, and enjoying the title of marquisate.

Annecy.
ANN

ANNECY is a city of Savoy, and capital of the Genevois, seated between Chambery and Geneva, on a lake to which it gives name, at the mouth of the river Sier, which passes through it. This lake is about 10 miles long and 3 wide. Annecy is the see of a bishop, whose dioceze includes Faucigny, Chablais, the country of Gex, and part of Burg. It has piazzas in several streets for sheltering the people from rain, several collegiate and parish churches, and convents for men and women. It is 19 miles south of Geneva, and 21 north-north-east of Chambery. N. lat. 45° 56'. W. long. 57° 57'.

ANNEX, Old, is now a village half a league north-east of Annecy. It was formerly a considerable town.

ANNERY is the name of one of the tribes who inhabit the defiles round-Palmyra, which is remarkable for the finest breed of horses in the world; the other tribe the Mowalli, who are much better soldiers, but fewer in number, and little inferior in the excellence of their horses. The Annery posses the country towards the south-west, at the back of Libanus, about Beirut, down the Euphrates; and southward towards the borders of Arabia Petraea and mount Hor. The Mowalli inhabit the plain east of Damascus to the Emphrates, and north to near Aleppo.

ANNESEL, in Ancient Geography, a place of Africa, situate, according to Antonius, in the track of the "Septis Magna," to Alexandria.

ANNESLEY, Arthur, in Biography, earl of Anglesey, and lord privy-seal in the reign of Charles II., was the son of Sir Francis Annesley, bart., Lord Mount-Morris, and Viscount Valentia in Ireland, and born at Dublin in 1614.

ANNIBAL, Domenico, in Biography, was born at Annesley, in Warwickshire, about the year 1624, and educated at Oxford. While he was a student, he was distinguished by his temper and industry. From Calamy, it appears he was ordained after the Presbyterian mode; though Wood says, that he received episcopal ordination.

ANNEXATION, in Geography, one of the smaller Scilly islands, near the south-east coast of England, about half a league from St. Agnes isle.

ANNETUS, in Ancient Geography, or Annestus, in town of Arabia Felix.

ANNEXATION, in a legal sense, the act of joining or uniting some less considerable thing to a greater.

ANNEXED, something joined to, or dependent on another. Thus, we say, such a farm, such an advowson, is annexed to such a fee, such a manor, &c. Charles V., in the year 1486, annexed Provence to the crown of France.

ANNIBAL, Domenico, in Biography, See Domenico.

ANNIENTED, or rather Anniented, formed of the verb annientar, to bring to nothing, or to annihilate, a term sometimes used in law-books, in the sense of frustrated, or nullified.

ANNIHILATION, compounded of ad, to, and nihil, nothing, the act of reducing a sub stance into nothing; or of totally
totally destroying and taking away its existence. Annihilation stands opposed to creation; the one supposes something made out of nothing, the other something reduced to nothing.

All annihilation must be metaphorical, or supernatural; bodies naturally admit of changes and alterations in their form, but not of annihilation.

The ancient philosophers in effect denied all annihilation as well as creation, revolting all the changes in the world into new modifications, without supposing the production of anything new, or destruction of the old.

By daily experience they saw compounds dissolved, and in their dissolution nothing perished, but their union or connection of parts: when in death the body and soul were separated, the man they held was gone, but the spirit remained in its original, the great soul of the world, and the body in its earth from whence it came; there again was re-constituted by nature into new compositions, and entered new states of being which had no relation to the former. According to some, nothing is so difficult as annihilation; it requires the infinite power of the Creator to effect it; some go farther, and feign to put it out of the power of God himself. According to others, nothing is so easy; existence is a state of violence; all things are continually endeavouring to return to their primitive nothing; it requires no power at all, it is what more, it requires an infinite power to prevent it.

The Talapoins hold it the supreme degree of happiness, to have the soul totally annihilated, and freed from the burden and slavery of transmigrations.

Some Christians maintain, that God will annihilate the souls of the damned, after a certain term of punishment; and this annihilation, they say, is the second death. Tre-nessus, according to M. du Pin, was of this opinion. See Death, Hell, and Punishment.

Annihilation is also used, in Political Arithmetic: thus, when the capital flock of any public fund is reduced, so much as is reduced is said to be annihilated.

ANNI Nubiles, among Late Writers, the legal age at which a maid becomes fit for marriage; which is at twelve years.

ANNIS Communionibus. See Communionibus.

ANNISEDE. See Annis-Seed.

ANNUARIE, is properly the yearly return of any remarkable day; or the day, or mind-day; that is, a memorial day.

The word is from annus and verb, on account of its recurring every year.

Annuaries day, dies anniversarii, among our ancetors; more particularly note those days on which the martyrdoms of the saints were yearly celebrated in the church; as also days whereon, at every year’s end, men were wont to pray for the souls of their deceased friends. Annuaria dies ido repetitur definitis, quoniam nefimus qualifier eorum causa habatur in alia vita. This was the reason given by Alcimus, in his Divine Offices. The first origin of annivarial days is referred by some writers to Pope Anacletus, and by others to Felix I.

Anniversary winds, are those which blow cautiously at certain seasons of the year.

These are otherwise called Etchian winds; such are the trade winds and monsoons.

Anniversary is more particularly used for the annal, or maists, rehearsed daily for the space of a year after a person’s death.

ANNIUS, of Viterbo, or John Nanni, in Biography, a Dominican monk, was born, in 1427, and distinguished as an impudent impostor. Furnished with talents and learning, he employed himself in writing books from his own invention, which he introduced to the world as genuine remaines of several ancient authors, in "Seventeen books of Antiquities." This curious collection contained several treatises of Archiloclus, Xenophontus, Berulphus, Manteho, Megaleses, Philo, Q. F. Pictor, M. Cato, Antonistus Pius, Sopronius, &e. &c. This work was first published at Rome in 1458; a second edition was published by Venetus at Venice; and in 1553, it was published in 8vo. at Antwerp. The editor pretended to have found the books at Muntiis; and the impression was for some time successful. Voilus and Bayle mention the advocates for the genuineness of these writings. On the other hand, the most approved critics examined these pieces, and pronounced them fantastic; and this judgment is now universally received. Annius died at Rome in the year 1552. Gen. Diet.

ANNOBON, in Geography. See Annabon.

ANNO Domini, q. d. in the year of our Lord; the computation of time from the epocha of the incarnation of Jesus Christ. This is generally inserted in the dates of all public writings, with an addition of the years of the king’s reign.

ANNOISANCE, in Law. See Nuisance.

ANNONATION, anlontation, in Rhetoric, the name with what is otherwise called Paronomasia.

ANNONA, Granubanous of Plum. in Botany, a genus of the polyandra polygynia class and order, of the natural order of condinates, and the genus of Juliaen: its characters are, that its calyx is a perianthus three-leaved and small; the calyx is much more numerous, placed on the receptacle: the pistil is a roundish germ, placed on a roundish receptacle; the pistil is nine, ligmas obtuse, covering the whole germ: the pericarpium is a berry, very large; roundish, clothed with a leathery, one-celled (or a comenpa berry, as in Ficus); seat the very many, hard, ovate-oblong, placed in a ring, and netting. Martyn enumerates ten, Wildenes eighteen, and Gemlin nineteen species. 1. A. muricata, rough-fruited currant apple, or four fop, granubanous of Plum. Aratica-pouhe of Marcig. Pif. and Ray, with leaves oval-lanceolate, smooth and acute, fruits muricate, petals ovate, petal the interior ones obtuse, shorter. This is a middle-sized tree, rarely above twelve or fourteen, or at most twenty feet high. It is a native of the West Indies, common in every savannah of Jamaica, and flowering in the spring. The small and taste of the fruit, flowers, and whole plant, resemble very much that of black currants. There is a variety in Jamaica, with inodorous leaves, large flowers of a fulvous colour, and spherical mucronate fruits. It was cultivated here in 1656 by Mr. J. Tradeifant, jun. 2. A. tripelta, A. charnoldi of Miller, broad-leaved currant apple, with leaves ovate, acute, pubetifery, with a few stiff petall and petals lanceolate, coriaceous, and tomentose. This grows to a large tree, with numerous branches, in South America. The fruit is esteemed by the Peruvians as one of their most delicate sorts. It was cultivated in 1739, by Mr. Miller. 3. A. squamola, A. tuberosum of Rumph. ataramma of Rhed and Ray, undulated currant apple, or five fop, with leaves oblong, acute, and smooth, fruits obtusely scaled, petals lanceolate and inner ones minute. This is a small tree about eight feet high, and commonly a shrub; a native both of the Eeal and West Indies; the fruit is sweet, and eaten in these countries; cultivated in 1739, by Miller. 4. A. reticulata, granubanous fructu aureo, &e. of Plum. Anomarum of Rhed and Ray, netted currant apple, with leaves oblong-lanceolate, acute and smooth, fruits ovate and reticulate-arculate, outer petals lanceolate, and inner minute. This
This is a tree growing to the height of twenty-five feet and more, with spreading branches; a native both of the East and West Indies; and the fruit, according to Bartram, is much esteemed by many people; but Swartz says, that it is seldom eaten; cultivated at Hampton court in 1690. 5. A. becola, A. bartramii, A. fimbriata of Ginolin, long-leaved cutiard apple, with leaves elliptic-oblong, acute, and smooth, petals pinnate, equal and acute; a native of China, and cultivated in the East Indies, introduced in 1755, by Hugh, duke of Northumberland, inspected by Lauroire not to be different from the third sort. 6. A. filifolia, granadnanus palmifolius, &c. thinning-leaved cutiard apple, with leaves oblong, rather obtuse and smooth, and fruits morel. This is a small tree, about a foot in height; growing wild in loft marshy places in Jamaica, and bears a few beet-seeded fruit, of no disagreeable flavour; but it is said to be a strong narcotic, and on that account not eaten. It is called alligator apple: its wood is so fine, that it is used for drawers of corks to stop up their jugs and calabashes; and hence it is new universally denominated the cork-wood in Jamaica; introduced here in 1772 by Dr. P. Clarke. 7. A. tribula, triffid-cutiarid apple, with leaves elliptic, acute, and smooth; flowers pendulous and campanulate, calyxes ovate, and petals many and oval. This tree’s trunk is about the size of a man’s leg, and its height about ten or twelve feet. All parts of it have a rank, if not a fettid smell; and few, except negroes, relish the fruit; it usually grows in low shady swamps, and in a very fat soil. It is a native of the Bahama islands, Carolina, Maryland, and Virginia, and the seeds are frequently brought to England, under the name of papaew-tree; introduced here in 1776, by P. Collinson, Eq. 8. A. glabella, smooth cutiard apple, with leaves lanceolate-oblong, and fruits conoid smooth; grows to the height of about sixteen feet, has an eatable fruit, sweet but somewhat inripid; it is the food of the guanas, and many other wild creatures. A native of North America. 9. A. ajBrain. A fiftic cutiard apple, with leaves lanceolate, smooth, thinning, and marked with lines; a middle-sized tree, with spreading branches; a native of the East Indies; cultivated there and in China. 10. A. africana, African cutiard apple, with leaves lanceolate, pubescent; a native of America, though distinguished by the epithet africana.

These fruits are much esteemed by the natives of the countries where they naturally grow; are esteemed very cooling and wholesome, and are frequently given to sick persons.

11. A. exoptica, with elliptic leaves and globose fruits. 12. A. oenopon, with leaves oblong, very entire, tormentofe, and somewhat fettic and smooth fruits. Abl. pl. Guian. 13. A. fruticos, with leaves oblong, very entire, tormentofe, under ruficent, and tuberculated fruits. Abl. pl. Gui. 14. A. punctata, with leaves oblong, smooth and very entire, and punctated fruits. Abl. 15. A. longifolia, with leaves linear-oblong, very entire and smooth, and punctated reticulated fruits. Abl. 16. A. arboris, with leaves oblong, acute, very entire, beneath tuberosous-tomentose tube. 17. A. pyrenae, with leaves oval-oblong, pinnate and many, and punctated reticulated leaves. Abl. 18. A. amara, with leaves cutiared, smooth, petiolar, under yellowish, and tomentose fruits. Abl. 19. A. munita, with oblong leaves, acerated fruits, and external corolla monopetalous. Jacq. Obli. Bot. This is reckoned by Willdenow, a variety of the A. retusa. To more facies, that have been above enumerated Willdenow adds—A. pyrena, A. pinnata of Bartram, with lanceolate acute leaves, and oblong acute petals, the interior longer: a native of Florida: A. obvata, A. grandifolia of Bartram, with leaves obturate and somewhat obtuse, oblong smooth fruit, obturate petals, the exterior the larger: a native of Florida, A. grandiflora, with leaves ovate-oblong and petiolar, of Vahl; with leaves ovate-lanceolate, smooth, and very large flower, of La Marek; and with leaves ovate-oblong, fruit elliptic and somewhat rough, and petals pubescent and oblong, the interior the shorter, of Willdenow: A. angustifolia, with leaves cordate-oblong, acute, double-rowed, and embracing the stem, of La Marek; or with leaves cordate-oblong and embracing, of Willdenow: a native of Madagascar and of the island of Mauritius.

Culture. &c. The seventh fort will thrive in the open air in England, if the flowers be warmed; but the plants must be trained in pots, and sheltered in winter for two or three years, and in the spring they may be turned out of the pots, and planted in the open ground. The other sorts, which are natives of the hot parts of America, or the East Indies, are too tender to live in this country, unless they are preferred in warm flores: the seeds that are brought over must be sown on a good hot-bed, or in pots of light earth, and plunged into a hot-bed of tanamar’s bark in February, which is the best time, that the plants may get strength before the colds of autumn. They should be kept in the hot-box, and with careful management they will make great progresse; but in warm weather, they should have plenty of fresh air. As they advance in their growth, they should be cautiously shifted into larger pots, constantly remain in the tan-bed; and they will thus be vigorous. They are preferred for the sake of the beauty of their leaves, as few of them flower, and none produce fruit in England. The flores in which they are placed should, during the winter season, be kept to the annas heat, as it is marked on the botanical thermometer. The earth should be light and rich, and the tan-bed frequently turned over and refreshed. In summer they should have frequent waterings; but in winter they should be sowed colder, not oftener than once a week in open weather; and in frost, it will be sufficient to water them once in two or three weeks. Martin’s Miller.

Annona, in Ancient Writers, denotes victuals, or provision, or corn for a year.

Annona ciliata, the corn with which the granaries of cities were filled every year, for the subsistence of the citizens.

The tax, called the annonæ, or supply of corn for the use of the army and capital, was a grievous and arbitrary exaction, which, in the time of Julian, exceeded; perhaps in a ten-fold proportion, the ability of the farmer, and his distress was aggravated by the partial injustice of weights and measures, and the expense and labour of distant carriage.

Annona militaris, the corn and other provision laid up in the magazines, for the subsistence of an army during the campaign.

In ancient writers we also meet with the phrase 'singula annonæ, bina annonæ, ternæ annonæ: with regard to which Saliusius lays down this rule, that when annonæ occurs in the singular number, it includes not only corn, but flesh, wine, oil, and other necessaries: whereas, when it is used in the plural number, it imports bread alone. Aquinas is not contented with this rule, but instead of it advances another, viz. that annonæ in the singular number includes all kinds of provision; and, in the plural, imports so many rations or portions of bread, flesh, and the like, distributed to so many men.

In this sense, soldiers are sometimes said to have riven to the benefit of five or more annonæ; that is, were entitled to so many rations. The Emperors Arcadius and Honorius took
great pains to reduce this profusion. Hence we read of annonae prefectus, or curator, who superintended the sale of corn; annone fruttor, who managed the military provisions; annonearius, an officer appointed to distribute provisions to the soldiers; and annonearii, denoting monopolists.

ANNONAGE, annomium, a tax on corn. Annus is much the same with francus.

ANNONAY, in Geography, a town of France, in the department of the Ardèche, and chief place of a canton in the district of Mezen, four leagues north-west of Tournon, and 13 north of Privas. N. lat. 45° 15'. E. long. 4° 52'.

ANNOT, or Anot, a town of France, in the department of the lower Alps, and chief place of a canton, in the district of Castellane; two leagues west of Entrevaux, and three north-east of Castellane.

ANNOTATION. formed of ad, and nota, note, a succinct commentary, or remark on a book or writing; in order to clear up some passages, or to draw some conclusion or consequence from it.

ANNOTATION, in the Civil Law, denotes a kind of receipt or grant from the emperor, signed with his own hand. But this annotation differed from a mere script and a pragmatic formula.

It took its name from the note or subscription at the bottom, which was in red letters.

ANNOTTO, in Commerce, a kind of red dye, brought from the West Indies. This is otherwise denominated arnate, anate, attale, and roucou.

It is procured from the pulp of the seed-capsules of a shrub called actoide and urucu; the bixa orellana of Linnaeus, which grows seven or eight feet high, and produces oblong hairy pods, somewhat resembling those of a chestnut. Within each of these are thirty or forty irregularly figured seeds, which are enclosed in a pulp of a bright red colour, and unpleasant smell, somewhat resembling the paint called red lead when mixed up with oil; and it was used as paint by some of the Indians, in the same manner as wood was used by the ancient Britons. The seeds, together with the red tough matter that surrounds them, are softened in a wooden trough with water, until, by a kind of fermentation, which spreads a very nauseous smell, and by diligent stirring and pounding, the kernels are separated from the pulp. This mass is then strained through a sieve, and boiled; upon which a thick reddish liquor, which is the pigment, separates. When skimmed off, it is carefully inpaned in another kettle; and after being completely cool, is moulded in roundish lamps, wrapped round with leaves of trees, and packed for sale. It seems to partake of the nature of vegetable albuminous matter. The method of extracting the pulp, and preparing it for market, is simply by boiling the seeds in clear water, till they are perfectly extracted; after which the seeds are taken out, and the water left undisturbed for the pulp to subside. It is then drained off, and the sediment distributed into shallow vessels, and dried generally in the shade. See Roucou.

The annonto is now only prepared by the Spaniards. The English had formerly a manufacture at St. Angelo, now ruined. This drug is preferred by the dyers to indigo, and sold one-fourth dearer. The double Gloucester cheese is coloured with this dye, not with myrtogold. Some of the Dutch farmers use it to give a rich colour to their butter, and great quantities are sold to be applied to the same purpose in the English dairies. The poor people use it instead of saffron; and it is sometimes mixed as an ingredient in chocolate, during the grinding of the cocoa, in the quantity of about two drams to the pound, in order to give it a reddish colour; but the opinion of its being an earth has brought it into disrepute, and this use of it has been discontinued.

Some have recommended it as a good cordial, and a preferential against retention of urine. It is used by the Spaniards in America as a gentle laxative, as an antidote to the dyentory, and a stimulant. But it is never preferred for medical purposes in Europe.

To water it gives only a pale brownish yellow colour, and is not soluble in that liquid, nor in spirit of wine; but, in order to be fit for dyeing, it requires an alkaline menstruum, to which it gives a bright orange colour; and hence it is useful as an ingredient in varnishes and lacquers, and in dyeing wax of a vermilion colour. Wool and silk, boiled in a solution of it by alkaline salts in water, acquire a deep, but not a durable orange dye; for though it is not changed by alum or acids, it is discharged by lepaps, and destroyed by exposure to the air. It is said to be an antidote to the poisonous juice of manihot, or caiffa. The liquid field under the name of "Scott's varney dye," seems to be nothing but annon to dissolved in alkaline ley.

See more of this artificial preparation, and the manner of making it, in Dr. Lewis's Commercium Phil Techn, p. 234, &c. or Neumann's Works, p. 453, &c. Murray, Med. vol. iii. p. 292. Green's Chem. vol. i. p. 443.

ANNUAL, something which returns every year, or closes at the end of the year. Thus we say, an annual or yearly feast, office, commission, rent, revenue, income.

The annual motion of the earth, see proved under Earth.

Annual is sometimes used for the yearly rent or income of a prebendary, &c.

In which sense annuale amounts to the same with what we otherwise call annum.

Annual is also used, in Ecclesiastical Writers, to denote a yearly office, paid for the soul of a person deceased on the day of his obit, or anniversery.

Annual, in the Scotch Law, denotes any yearly revenue or due paid at certain times, either legal, as Martinmas and Whitsundaze; or conventional, as the parties agree.

In the acts of parliament made by Queen Mary, mention is made of ground-annual, due-annual, and top-annual; the meaning whereof is somewhat uncertain. See Annuel.

Annual argument of longitude. See Argument.

Annual equinox. See Equinox.

Annual equation of the mean motion of the sun and moon, and of the moon's apogee and nodes. See Equation.

Annual leaves, are such leaves of plants as come up afresh in the spring, and perish in winter. These stand opposed to evergreens.

Annual plants, called also simply annuals, in Gardening, commonly signify such plants as are of one year's duration, or which continue for the summer seasons, or a few months only. In general, however, all such plants as arise from seed found in the spring, arrive at maturity in the summer or autumn following, producing flowers and ripe seed; and which afterwards perish in their tops and roots, are considered as annuals. This last effect takes place in most sorts in the autumn and winter following; though some hardy kinds, when late found, will stand over the winter until the ensuing spring, especially those of the eulent sorts; but very few of the flowering kinds remain longer than October or November, unless protected by a greenhouse, garden-frame, or some other covering of a similar nature.

The plants of this tribe are very numerous, as most of U u those
of the herbaceous kinds, confining of uncultivated plants, weeds, &c.; and also a number of cultivated garden and field plants, both of the elegant and flowery ornamental kinds, are of this description. The half hardy are often termed simply annuals. They are likewise very extensive, and both of the hardy and tender kinds, some of which, from the peculiarity of their nature, and others from their producing beautiful flowers, are cultivated as ornaments to the flower garden and pleasure ground, during the summer and autumnal feasts.

The flowering annual plants are distinguished by gardeners into the hardy and tender sorts; the former being such as are capable of being raised from seeds sown on beds, borders, or other places in the natural and open ground, while the latter continually require to be sown, and to have some degree the aid of hot-beds, in order to promote their healthy growth.

The half hardy, or the hardy annuals, are also mostly sown in places where they are designed to remain and flower without being transplanted, as many of them do not succeed under such management; some, however, will answer in either method, and may be occasionally transplanted. But the tender annuals, after being sown and brought to a proper state of growth in hot-beds, are generally to be transplanted about May or June, either into pots or borders in the open ground.

1. Hardy Annuals.—The following are some of the principal of the hardy sort of flowering annuals: adonis, or adonis flower; alkekengi, white flowered, blue, yellow barried, red barried; amaranthus, prince's feather, love lies bleeding, purple; clyfen, white, sweet scented; amethystea, blue; balm, moldavian; belladonna, or summer cypress; calendula, or cape marigold; candy tuft, white flowered, purple, large white, crimson; catchfly, lobes red flowered, white purple, caterpillar; cherv, red topped, white topped; convolvulus, three coloured minor, minor blue and white, minor blue, major blue, great white, great striped blue, great purple, red; cyanus, or bluebottle, blue-flowered, purple, white, red, striped blue and white; cucumber, sporting; devil in a bush, blue flowered, white, nectar leaved; fumitory, yellow; hawthorn, yellow, red; hedgehog, trefild; snail-flapped, prickly, turbinated, globular, orbicular, long crooked twisted; honeywort, greater, less; bolly-hock, chinee variegated, double flowered; jacobea, or ragwort, purple flowered white; indian corn, tall growing, dwarf; kidney beans, scarlet runner, dwarf scarlet, large white runner; ketmia, bladder, larkspur, upright, bright, upright purple, upright white, upright rose colour, wogocket, rose rocket, rose rocket, dwarf wogocket, dwarf rose rocket, dwarf white rocket, dwarf blue rocket, dwarf red rocket, branching, blue branching, white branching, double and single flowered of all the different sorts; lavatona, cretan red flowered, white, purple; lupine, dwarf yellow, large yellow, white, great hairy blue, great hairy rose coloured, narrow leaved blue; lychnis, dwarf; marigold, double orange coloured, double yellow, double lemon coloured, gold coloured, party coloured, yellow ranunculus flowered, childing or profligine, cape marigold; mallow, curled leaved, oriental; mignonette, odoriferous or sweet scented; nasturtium, major or large growing, minor or dwarf; nohame, peruvian dwarf blue; nigella, or devil in a bush; pansy, or heart's cafe, common small variegated, large Dutch variegated, large purple, yellow, purple and yellow, purple yellow and white; peas, sweet scented, purple, white, painted lady, scarlet, tangier; pea, winged; pea, crown, white bloomed crown, painted lady crown, rose coloured; penta, oriental, red flowered, white flowered; poppy, large double purple, double red, white variegated, red and white spotted or carnation, dwarf red, dwarf purple, dwarf variegated, double and single of all the different sorts; queen's balm, fiorious, purple sweet, red flowered, white, striped, hen and chicken flowered, flax flowered; small trefild, flock gillyflower, ten weeks, purple flowered, red, white, scarlet dwarf French, wall-flower leaved red, wall-flower leaved purple, wall-flower leaved white, flock virgin, purple white; snap dragon, annual with white flowers, purple flowers, major or greater with flowers, purple white, yellow, scarlet, red and white, purple and white, red and yellow, white and red, yellow and white, scarlet gold dotted; flowerberry, pink, sun-flower, annual, tall growing dwarf, double flowered of each sort; sweet felts, purple, red, white, yellow; toad flax, three-leaved yellow, three-leaved purple, three leaved blue, variegated, white; branching yellow, tobacco, hardy round leaved, Virginia long leaved, Virginia broad leaved; Virginia or virgin's flax; Venus's looking glass, purple, white; Venus's novel coat, blue flowered; scarabium or eternal flower, red, purple, double flowered.

The authors of the "Universal Gardener," in which the above list is contained, observe, that the general feast for sowing all sorts of hardy annual plants is in the spring, from about the middle or latter end of February to the middle or latter end of April, for the principal blow; and also some in May and the beginning of June, for successive and late flowering, especially those of the quick flowering kinds of short duration, as candy tuft and virgin flax, &c.

The order or method of sowing all these is principally in little patches or clumps, to remain as mentioned above. These patches should be formed from about three or four, to five, six, or eight inches in diameter, at moderate distances, and in some sort of regularity, towards the front, middle, and back parts of the borders or beds; and also in a varied manner in respect to the plants; the smaller growing sorts being constantly sown more or less towards the fronts of the borders, according to their degrees of growth; and the larger kinds more backwards, in the same proportion. Some may likewise be occasionally sown in pots; and in all of which, each sort and respective varieties should be sown in separate patches, &c. from about a quarter of an inch to half an inch or an inch in depth, or but little more, according to the sizes of the different sorts of seeds; observing in this business to generally loosen and break the earth a little, so as to render it fine for each patch, especially if hard, stubborn, or cloddy; then drawing off a little depth of mould, according to circumstancess to one side, so as to feed the seeds many or few together in the patches, proportionately to the sizes of the respective plants, covering them regularly with the earth drawn aside to the depth required; and thus proceed in general, always placing a small short ditch, or some other mark, to each patch as the sowing goes on, in order to distinguish the places.

Some may also be occasionally sown in drills, either in beds separately, or on the borders; the low growing kinds towards the fronts, and the larger sorts towards the back parts; in which order of growing may be had virgin flaxs, candy tuft, larkspur, fucet peas of the different sorts, lupine, tenweek flaxs, &c.

After sowing, if it be dry warm weather, it will be beneficial to give occasional light waterings, both before and after the plants are come up, especially during their more early growth; and when they are come up about an inch or two in height, those in the patches will, in many sorts, require thinning, especially those of a large, tall growth, and bushy.
ANNUALS.

bulky kind, such as sun-flowers, 
precaria, Indian corn, tobacco, helverdes, marigold, &c: fome to one good plant in each patch; others to two or three plants, as hortula, curled and oriental mallow, strawberrv, spinach, Chinese bolly
ock, convolvulus, amaranthus, febricul, sweet Fulton, and similar kinds; and fome also left in small bunches, as candy tufa, lupins, larkspur, sweet peas, cynam, nufurium, convolvulus, 
Yvautes looking-gles, and navel sorts, mignonette, virgin flock, maltbrownian, balsam, and many others of similar growth. Or fome tenweek focks and mignonette may either remain thin in patches, or, where too thick, fome of each fock be transplanted in that order, three, four, or five together; or as required; also in many of the other focks, fome may occasionally be thinned out for transplanting, when required to supply deficiences, &c: always performing the binnets, as much as possible, in fower weather.

It is further remarked by the fame writers, that in the advancing growth of the plants, the principal culture is to keep them clean from weeds; and where any large focks remain too clofe or crowded together, to thin them according to their growth in some regular order; and in the larger tall growing kinds, some will require the support of ficks, as also most of the climbing or trailing focks, particulariy the sweet peas, convolvulus major, and large naturtium, &c: and to the climbers, some upright fmall branching ficks, trimmed up a little regularly, fhould be placed: the convolvulus and scarlet bean being volatile, or twining fickers, will ascend spirally upon any ftrait upright fick, pole, or fke.

If it fhould be required to have any defirable focks of thefe hardy annuals of moderate growth to fower early, they may be forwarded by fowing the fees in pots in February or March, and placing them in a hot-bed, or more successfully in a hot-house, &c: such as scarlet and other sweet peas, virgin flock, candy tufa, mignonette, tenweek focks, dwarf lupins, dwarf larkspur, queen's balsam, and several others, efpecially of limiar moderate growth.

As all the plants of this tribe of annuals generally produce plenty of ripe feed in autumn, care fhould be taken to save proper supplies of the different bell focks, as it ripens in perfeftion, in order to have plenty for fowing the enfuing spring to raise a production of new plants for flovering the following summer. In some focks the scattered, or self
found fees, difminated from the plants on the borders, will often come up naturally early in the spring; fuch as large
spur, prince's feather, percaria, &c: and which, if permitted to ftand, will flower sooner than the fping fown plants; but as many of thefe often ripe irregularly, they fhould be transplanted while young into some regular order; and as they are only chance productions, they fhould not prevent the regular fowing.

2. Tender Annuals.—The principal focks of which are contained in the following list: african marigold, orange co
coured, lemon coloured, deep yellow fibilious or quilled, waved flovered, dwarf, sweet fcented, double flovered of each fock; amaranthus, *greate or true, *bloody, trailing or love lies bleeding; *bolism red, scarlet, purple, fripped, variegated, double; *bim, common greater upright, sweet with broad leaves, fringed leaves, purple leaved, tricolore leaved, red flovered, purple flovered, long frilled, &c:, leaf or bufb balm with hoary leaves, dark purple leaved, variable leaved, &c: calendula, or cape marigold; *cypferum, long podded, short podded, heart podded, bell podded, angular podded, cherry podded, olive podded, red podded, scarlet podded, yellow podded; China-alba, blue flovered, purple, red, white, fripped, variegated, bonnet flovered, quilled flovered, double and fingle of each fock; Chinese bolly
ock, variegated, double; *crysanthemum, yellow, white, cream coloured, sulphur coloured, fibilious or quilled, double and fingle of each fock; convolvulus, major, with deep purple flowers, red, blue, white, deep blue; *cucumber, fiane faped; *egg plant or melangina, white, fruitef, purple fruitef; *french marigold, deep yellow, golden yellow, crimfion coloured velvety, crimfion and yellow striped, variegated crimfion and yellow, sweet fcented dwarf, double and fingle of each fock; *gourd, orange, pear faped, fripped pear faped, lemon, top faped, bottle or calabash buckler faped or squash, carbuncled, warted, long taper, long crooked, horn faped, large barrel faped, large globular, large oval, hemispherical yellow, floce, coloured, fife coloured, fandy coloured, party coloured, white, &c: *globe amaranthus, purple headed, white variegated, silver faped; Indian corn, tall growing dwarf; *india pink, bright red, purple white, red and white variegated, differently variegated, numerous, large imperial, double and fingle of each fock; *love apple, red fruitef, yellow fruitef, cherry faped; *maron of Peru, red flovered, yellow, white, purple, fripped, long tubed flovered; *melon, fiane faped or ferpent cucumber; mignonette, sweet fented; *nolana, trailing blue; *palmia criptis, major or tall growing, minor or leffer, molt broad leaved, leffer leaved, &c: *percaria, oriental, red flovered, white; *sultau flower yellow; *lock gilliflower, ten weeks, red, purple, white, scarlet, dwarf scarlet, dwarf white, wall flovered, white, wall flovered purple, double of each fock; to
bacco, Virginia long leaved, Virginia broad leaved; *tree
amaranthus, *cinna, red flovered, yellow.

In refpect to the culture of the more tender annuals, it is remarkef in the fame work, that they fhould be mostly either fown in a moderate hot-bed in March or April, and the young plants forwarded a little in growth therein, till setted warm weather, in the middle or latter end of May; and then transplanted; or fown in a bed of natural earth or warm border in April, protefed under a garden frame or glaffes, or at leaff defended in cold nights by garden mats; and in either method to be transplanted, in May or beginning of June, into beds, borders, pots, &c. in the flower and pleaure garden, to remain for flovering in summer and autumn. But that, where the convenience of a hot-bed is attainable, it is always adviseable to raise a principal supply by that means for earlier transplanting and flovering, as a portion of the different focks may be fown and raifed in one hot-bed, smaller or larger, according to the quantity required; fuch as a bed for one light, or for two or three light frames; or where considerable supplies are wanted, a larger extent of hot-bed will be necfary in proportion; making the bed or beds in March or the beginning of April, and defending them with a frame and lights, or hand-glaffes; or in want of thefe, protecting them with an awning of mats in cold nights and bad weather, oberving, in general, that only a moderate hot-bed, of about two feet thick in dung, will be fufficient; earthing it at top five or fix inches deep, with fine rich mould; in which fow the feed in small drills crofways, drawn with the finger two or three inches alder, from half an inch to an inch deep, according to the size of the different focks of feeds, which fhould be fown regularly, each fock feparately, and covered in eveny with the earth the fame depth, giving them air occasionally, by raifing one end of the glaffes an inch or two; or if a covering of mats, by taking them off, or turning them up in front in the day time; and according as the plants increafe in growth, admitting a larger portion of fresh air to strengthen and harden them by degrees, giving also occa-

U 2 fionally
fionally gentle waterings. Continue in this manner the care of the young plants until advanced two or three inches in growth, when it will be of advantage to prick out a quantity of the principal sorts into another moderate hot-bed, three, four, or five inches almand; or others into natural beds of light earth under frames and gla\ftes, or to be defended occasionally by mats; but in deficiency of hot-beds, frames, &c. they may, in general, be pricked out in the middle or latter end of May into natural beds in the open ground; all of which should be watered at the time, and afterwards occasionally; and shaded with mats from the sun, if convenient, till the plants have taken fresh root; observing also to give those in the hot-beds and under-glusses left or more air every mild day. When in three, four, or five weeks, in either of these beds, they have acquired a tolerable degree of strength and size, as four, five, or six inches growth, or more, according to the distance of the sorts, they should all be finally transplanted about the middle or latter end of May and beginning of June, into the open ground on the beds, borders, and other compartments, and into pots, to remain for flowering. Taking the opportunity of moist weather, if possible, for the work; and, where convenient, to remove and replant some sorts with a little ball of earth adhering about the roots, as it will be of great advantage in their more early flowering; watering them as soon as planted out, and afterwards as occasion may require, till freely rooted, and they discover signs of a renewal of growth.

It is added, that as any of the above raised plants have remained some time in the seed-bed not pricked out, they may probably have drawn one another up into a weekly growth, care should be taken to plant them out in May, as soon as the weather is fitted and favourably temperate, especially the more tender species that have this mark prefixed to them.

It is also observed, that ten-week flocks and mignonette may be sown in a hot-bed so early as February, or any time in March, in order to raise a few plants to prick out into pots, three or four in each, for the earliest flowering; or some may be sown in March in the natural earth, or a warm border, under gla\ftes or other occasional shelter, for early transplanting in April or May, into pots and flower borders, &c.

In the gourd kinds, when desirous to raise them in hot-beds, they should not be sown before April; for if sown earlier, they are apt to grow too large before the fæon becomes sufficiently warm to admit of planting them out in the open ground; or in the beginning or middle of May some may be sown in the natural ground, both for transplantation, and in patches to remain.

But where hot-beds, frames, gla\ftes, and other similar conveniences are deficient, many of the species and varieties of this class, as has been just observed, may be raised in the open ground, especially if not generally sown till the beginning, or towards the middle or latter end of April, according to the state of the fæon, sowing them in a warm border or other compartment, of light earth, or in pots placed in similar situations; and when the plants are advanced several inches in growth, prick them out into beds, or finally planting them out in May and the beginning of June. In this way they will all flower in tolerable perfection, but not generally so soon by a few weeks, nor all in an equal degree of full growth and perfection, as those which are forwarded in hot-beds, or under the protection of frames, gla\ftes, &c. to a proper size for earlier setting out.

The sorts that will occasionally the most readily succeed without the aid of hot-beds, &c. are the African and French marigold, cynanchum ciliare, fritillary, Indian pink, love-hearts, Nyctaginaceas, Papaver, tobacco, tobacco, Nicotiana, papyracea, and Indian corn; also gourds, if not sown till May; and sometimes palms, &c. and the love apple, in a temperate warm situation. All these may be sown in beds or borders of natural earth, in warm situations, as has been observed, but not in mod of the sorts before the middle of April; the plants being pricked or planted out in May or June into beds, borders, and pots, to remain for flowering.

In sowing the above sorts in the natural ground for want of hot-beds, if the beds or borders in which they are sown be defended under frames or hand-gla\ftes, or sheltered with mats, it will be of much advantage in raising the plants more successfully to a forward growth; and they will more conveniently apply proper strength for transplanting out and flowering.

There are some however of this kind, that cannot be sown in any tolerable perfection without hot-beds to bring them forward at all to a proper growth for transplanting. But in want of hot-beds, some under gla\ftes about the middle or latter end of April or beginning of May; and when the plants are advanced a few inches in growth, in the latter end of May or beginning of June, plant them out into borders, beds, and pots. The method by means of pots, beds, frames, and gla\ftes, is, however, by much the best.

In finally pricking out the plants in May and June, where they are to remain for flowering, showery weather is also of great advantage; and where any particular sorts can be removed and replanted with little balls of earth about their roots, that method should not be omitted. The bufinies may be performed in some with a garden trowel to make proper apertures, as for those with balls of earth full of roots; and others with a dibble, according to their growth. In most sorts, planting them singly, or one plant only in a place, and disposing them in the borders. &c. in a diversified manner, the smaller sorts more or less forward, and the larger sorts towards the middle and back parts, in some proportion to their different degrees of growth, as before directed. Some of the other principal sorts may also be placed in pots as required. But in the ten-week flocks, and other similar plants, it is always advisable to plant some in patches, three or four plants together, about three inches apart, both in the borders and in pots, in order that, as being of small growth, their flowers together may appear more conspicuous, and have a greater chance of producing some double flowered plants. Some mignonette and nolana, as being low plants, may also be planted in the front order. The love apple and gourd being of extreme rambling growth, may be planted against a south wall, paling, trellis, &c. especially the love apple, in order to have their extending branches trained thereto, that they may ripen their fruit more effectually in autumn. Gourds of the small fruited kinds may be planted in a similar manner, or against the railing of arbours, &c. in order to be trained up thereto in their advancing growth; others in capacious spaces, in large borders, &c. to have room to extend along the ground, or to be trained up to strong tall flakes. Moderate watering should be given directly in every case, especially in dry weather, and repeated occasionally till the plants have taken fresh root, and begun to grow.

The after-culture is chiefly to keep the plants clear from over-running weeds, and to give occasional support to those of large or tall growth; and sometimes where any branch out
out very irregularly, or in a rambling manner, in their advanced growth, as often happens in the African and French mangolbs and erythamemon, &c. they should be trimmed to the regular order; and some sorts, as the love apple and the goose kinds, if planted any where in the borders, being of a very rampant growth, be trained up to strong flakes, as before observed, both to prevent their over-running the adjacent plants, and that their fruits may appear more conspicuous, and ripen in greater perfection, especially the one apple. And such plants as have been planted in pots, will now be ready for moving in their respective pots occasionally, when in flower, to adorn particular compartments of the garden or other places, as may be required; and as the earth in the pots driks very fast in hot weather, they will require watering every day or two during the season. All or most of these plants will be flowering in June or July, and continue, in general, till September or October; and the greater part of them are highly ornamental, though there are a few sorts that are of little or no value for their flowers, as the capscium, love apple, egg plant and goose, being chiefly esteemed for the appearance of their fruit; and the palm chilli for its majestic growth and large palmate leaves. All the sorts produce ripe seed in Autumn, and soon after wholly perish: particular attention should therefore be given to collect proper supplies of seed from the best flowering plants of the different sorts: when dry, to be preserved for use in the succeeding spring.

There is, in addition to the above, a still more tender kind of annual plants; and which, according to the writers already mentioned, are superiorly ornamental and curious, some in the beauty of their flowers, others in the singularity of their beautifully coloured leaves, as in the amaranthus tricolor and bicolor; some for the curiosity of their fruit, as in the egg plant andsnake melon, &c.; and the humble and festive plants, from the singularly beautiful festive motion of their leaves; the ice plant, in its icy-lich or crystalline appearance; and the tree amaranthus, both in its large tall growth branching widely around, and its vast pendulous flower-spears often two or three feet long or more.

These are chiefly comprehended in the following list:

3. Tender Annuals.—Amaranthus, tricolor, bicolor, maximus or tree amaranthus, bloody, &c.; balsamum or fum, double fringed, double scarlet, double purple, double bizarre; brassilia; cock’s comb, tall purple headed, dwarf purple, crimson, buff coloured, yellow, branching; convolvulus, scarlet; egg plant; globe amaranthus; humble plant; ice plant, or diamond forms, oval leafed, pinnafied leaved; marcel of Peru; martynia, purple flowered, red, white; melon, snake shaped; frangoarium, double white, double purple, double fringed; festive plant, double flowered annual, common Shirley, humble; samin.

These very tender annuals are all to be raised in hot-beds in the spring, under frames, &c. till May or June; and in order to obtain them in a tolerable degree of perfection, two different hot-beds, at three, four, or five weeks intervals, will be necessary for sowing or raising them in: one the latter end of February, or any time in March, but not later than the beginning of April; the young plants, when about one, two, or three inches in height, being pricked out, some into small pots singly, others in the earth of the same bed if there be room enough, if not, into another hot-bed; and when they have advanced in growth, so as to crowd one another, they should be removed into another hot-bed, under a deeper frame, or the frame raised at bottom occasionally, as the plants rise in height. Some should be put in large pots, and others potted that were not so before, plugging the pots in the earth of the bed; or some may be put in the bed, six or eight inches asunder: water is then to be given in general, and the glasses put on. The whole from their first growth must have an admixture of fresh air every day, by raising the upper end of the glasses two or three inches, supplying them with moderate waterings. In this way they may be forwarded until the latter end of May, or sometime in June, according to their growth or the temperature of the season, as before suggested; but in the mean time, in their advancing stage, inure them gradually by degrees to the weather, particularly by gradually admitting a larger share of air, or by sometimes taking the glasses off entirely in warm days, &c.

The humble and festive plants should, in general, be continued contantly under glasses, in a green house, &c. or in a room window within, in the full sun; as, if fully exposed to the open air, it would deprive them of much of their lively festive motion, in which curious singularity their principal merit consists.

In order to raise some of the more curious sorts of this kind of annuals in the greatest perfection, such as the tall cock's comb, tricolor, bicolor, double fum, frangoarium, globe amaranthus, egg plants, &c. it will be necessary to have two or three different successive hot-beds under frames and glasses, at a month's interval; that is, a small one in March, to sow the seeds, and raise the plants an inch or two high; a second in April, of larger dimensions, in which to prick out the young plants from the seed bed, three, four, five, or six inches asunder; and sometimes a third in May, for a larger frame to receive them when transplanted in pots to remain till June, and they grow to full size; observing that while they are in the second and last hot-beds, the frames be occasionally raised or augmented in depth, according as the plants rise in height.

The first hot-bed for the seed should be made, as already directed, of suitable dimensions, and about two feet and a half deep in dung; the frame and glasses then put on, leaving one end of them open, to let out the rank flem of the dung; and in a few days, or when the first great flem and heat of the bed are gone off, the earth, which must be rich, light and dry, be put on four or five inches thick. The seeds of different sorts may now be sown, each kind separately, in small shallow drills, drawn with the finger, covering them with fine mould, from a quarter to half an inch deep, or with the very small seeds but very thinly. The glasses are then to be put on again, letting one end of them a little open, for the evaporation of the rising flem of the bed, covering them every night with garden mats. The plants mostly appear in a few days, when fresh air must be judiciously and with caution admitted, by propping up the ends of the glasses about an inch or two every mild day; and when the earth becomes dry, a very light sprinkling of water be given in a funny forenoon. The glasses should be mostly kept cloe in the nights; but if a strong flem and heat take place, they may be raised a little at one corner, for air to enter, and the flem to pass away, hanging the end of a mat over the tilted part, and continuing to cover the glasses with mats every night.

The care of the feeding plants is to be continued in the beds for about three weeks, or till they are advanced one, two, or three inches in growth, according to the different sorts; they are then to be pricked out into another newly made hot-bed.

When the plants in the feed hot-bed are advanced one...
two, or three inches, as above, another hot-bed should be put in readiness to receive them, making it for a two or three light frame according to the quantity of plants that are ready for the purpose. When the bed has imparted a proper degree of warmth to the earth, take up the plants with care, and in the same manner as directed above, prick them out into this, four or five inches distant, then give them a very light watering, and occasionally shade them in the middle of sunny days till they have flowered fresh roots, and admit air as before every fine day, by raising the upper ends of the glasses one or two inches; also occasional light waterings two or three times a week, in warm weather, and defend them in the nights with mats, and raise the frames, according as they extend in height, as before advised. After having had four or five weeks growth in this bed, if they have advanced considerably, as to meet and crowd one another much, it will be advisable, as already noticed, to remove them into a third and final hot-bed where it can be conveniently obtained; some being planted in the bed, others previously potted and placed in them, to be covered by glasses as directed above.

The frames, glasses, or other conveniences for these uses should be sufficiently large, especially for the tall plants, and capable of being raised at pleasure, as they advance in growth. The other management being the same as directed above. (See Hort. Anth.)

Before the plants are finally set out, they should always be occasionally exposed, and have the air freely admitted to them in the frames, at proper times, in order to harden them. And about the latter end of June, or beginning of July, when the weather is settled, they may be removed in their pots to the places where they are designed to remain for the summer.

This class of annual plants should always occupy the principal situations both in gardens and pleasure grounds, as in the most public and most frequented compartments in the front courts, &c.

The only culture that is necessary in any of the different sorts, when removed into the full air, is principally to supply them with suitable quantities of water, especially those in pots; and occasionally to such as are in borders, when first planted out, and till fully rooted; and to keep the whole clean from weeds, and supported with dicks, &c. where required.

They all flower from June or July till the end of autumn; and in August and September ripen seed, which should then be gathered from the best and most perfect plants, when the weather is quite dry.

The particular management of the different plants will be found under the genera to which they respectively belong.

**Annual meadow grass,** called in some parts of England Suffolk grass, is a species of grass which makes the finest turf, and teems well adapted to dairy-farms. See Poa Annua.

**Annualia,** yearly oblations anciently made by the relations of deceased persons on the day of their death.

This day they called year-day, &c. and on it mafs was celebrated with great solemnity.

**Annuel, ground,** according to Skene, is when the property of any land, whether built or unbuilt, is let or sold for a yearly rent, to be paid either to the proprietor, or to some chaplain or priet.

**Annuet, fire,** is either when the mail or due is dispofed of as a yearly revenue; or, when the land or tenement is let in a fee-farm heriditary, for a certain yearly sum to be paid under the denomination of feuda firma.

**Annuet, top,** is a due given or assigned out of houses or buildings, where the property remains with the former owner, only with the condition of his paying the said annu.

**Annuet of Norway,** of which mention is made in the acts of parliament of King James the Third, was an annuit payment of an hundred marks sterling, which the kings of Scotland were obliged to pay to the kings of Norway, in satisfaction for some pretentions which the latter had to the Scotch kingdom, by virtue of a conveyance made thereof by Malcolm Canmoin, who usurped the crown after his brother's decease.

This annulet was first established in 1266; in consideration whereof the Norwegians renounced all title to the inheritances of the kings of Scotland. It was paid till the year 1468, when the annuit, with all its arrears, was renounced in the contract of marriage between King James the Third, and Margaret, daughter of Christian the Fifth, king of Norway, Denmark, and Sweden. See Skene de rebus. Sign.

**Annuities Mammalian in Anatomy,** a pair of transverse muscles, at the root of the verte of the back, called also by Mr. Cowper recti internos minoris, because they lie under the recti majorae.

They are called annuities, from annus, to nod towards, because they help to nod the head, or draw it directly downwards and forwards.

Annuities signify any interest of money, rents, or pensions, payable from time to time, at particular periods.

The most general division of annuities is into annuities certain; and annuities the payment of which depends on a contingency; such, in particular, as the continuance of a life.

Annuities have been also divided into annuities in possession and annuities in reversions; the former meaning such as either have commenced, or are to commence immediately; and the latter such as will not commence till some particular future event has happened, or till some given period of time has expired.

Annuities may be farther considered as payable yearly, half-yearly, or quarterly.

The present value of an annuity is that sum which, being improved at compound interest, will be sufficient to pay the annuity.

The present value of an annuity certain, payable yearly, and the first payment of which is to be made at the end of a year, is calculated in the following manner.

Let the annuity be supposed to be 100l. the present value of the first payment of it, or of an hundred pounds to be received a year hence, is that sum in hand, which being put out to interest, will increase to 100l. in a year. In like manner, the present value of the second payment, or of 100l. to be received two years hence, is that sum in hand, which being put out to interest, will increase to 100l. in two years. The like is true of the value of the 3d, 4th, 5th, &c. payments; and the sum of the values of all the payments is the value of the annuity.

Let the interest be supposed to be 4 per cent. The sum which improved at 4 per cent. interest for the year will produce 100l. at the end of the year, is the sum which bears the same proportion to 100l. that 100l. bears to 100l. with 4 added to it, that is, 104l. Say then, as 104l. is to 100l. so is 100l. to a fourth proportional, which will be 96l. 15s. or 96l. 3s., the value of the first payment.

Again, the sum which improved at 4 per cent. for two years,
years, will produce 100l. at the end of two years, is the
sum which being now put out to interest will produce in a
year that sum which in one year more will produce 100l.
that is, it is the sum that will produce in a year 96l. 3s.;
for it has been just shown, that 96l. 3s. will in a year
produce 100l. Say then, as 104s. is to 100l. so is 96l. 3s.
or 95.15, to a fourth proportional, which will be 92.45,
or 91. 9s. The value therefore of the second payment is
92l. 9s.

By proceeding in this method it will be found that the
value of the 3d, 4th, 5th, &c. payments, are £88.89,
£85.48, £82.19, &c. The sum of 10, 20, or 100 of
these values, is £811, £1359, £2450, respectively, or the
present value of an annuity of 100l. payable for 10, 20, or
100 years. The sum of an infinite number of these values
is 2500l, or the value of a perpetual annuity of 100l. at 4
per cent.

In general: suppose r to denote 1l. increased by its in-
terest for a year, or the amount of 1l. in a year. Then
\[ \frac{1}{r} \]
will be the present value of 1l. to be received a year
hence; for r = i as 1 is to \( \frac{1}{r} \). Also \( \frac{1}{r^2} \) will be
the value of 1l. to be received at the end of two years;
for r = i as \( \frac{1}{r^2} \) is to \( \frac{1}{r} \). In like manner, \( \frac{1}{r^3} \),
\( \frac{1}{r^4} \), &c. will be the values of 1l. to be received at
the end of 3, 4, 5, &c. years respectively; and \( \frac{1}{r^n} \) will
be the value of 1l. to be received at the end of n years.
The value, therefore, of an annuity of 1l. for n years is
\[ \frac{1}{r} + \frac{1}{r^2} + \frac{1}{r^3} + \frac{1}{r^4} + \cdots + \frac{1}{r^n} \]

conducted to n terms. And the
value of the perpetuity is the series continued in infini-
tum.

In order to find the sum of n terms of this series, put
S equal to it, or \( S = \frac{1}{r} + \frac{1}{r^2} + \frac{1}{r^3} + \cdots + \frac{1}{r^n} \).

Then,
\[ S = \frac{1}{r} + \frac{1}{r^2} + \frac{1}{r^3} + \frac{1}{r^4} + \cdots + \frac{1}{r^n} \]
\[ S - 1 = \frac{1}{r} + \frac{1}{r^2} + \frac{1}{r^3} + \cdots + \frac{1}{r^n} \]
\[ S - 1 = S \times \frac{1}{r} \]

This is the general theorem for finding the sum of any
given number of the first terms of the series \( \frac{1}{r} \times \frac{1}{r^2} \times \frac{1}{r^3} \times \frac{1}{r^4} \times \cdots \times \frac{1}{r^n} \),
that is, for finding, from the rate of intereft
given, the value of an annuity certain, payable yearly for any
number of years. If the annuity is a perpetuity, it is plain
that \( \frac{1}{r^n} \), or the last term vanishing, \( \frac{1}{r} \times \frac{1}{r^2} \times \frac{1}{r^3} \) also van-
ishes; and, consequently, that the expression becomes
\[ S = \frac{1}{r} \] : from whence it results that the value of a
perpetuity is always unity divided by the interest of 1l. for
a year, or 100l. divided by the rate of intereft.

**Example**

Annuties certain differ in value as they are made payable,
yearly, half-yearly, quarterly, or at shorter intervals. Let r,
instead of denoting as before, 1l. increased by its intereft for
a year, denote the intereft only of 1l. for a year, and let n
denote the term or number of years during which the annu-
ity is to be paid. By reasoning as in the former case, the
value of the annuity will be
\[ \frac{1}{1 + r} + \frac{1}{(1 + r)^2} + \frac{1}{(1 + r)^3} + \cdots \]
\[ \frac{1}{1 + r^2} + \frac{1}{(1 + r^2)^2} + \frac{1}{(1 + r^2)^3} + \cdots \]
\[ \frac{1}{1 + r} + \frac{1}{1 + r^2} + \frac{1}{1 + r^3} + \frac{1}{1 + r^4} + \cdots \]
\[ \frac{1}{1 + r^n} + \frac{1}{1 + r^2n} + \frac{1}{1 + r^3n} + \frac{1}{1 + r^4n} + \cdots \]
accordiing as it is payable, either
half-yearly or quarterly. The firt of these series is
\[ \frac{1}{1 + r} \times \frac{1}{1 + r^2} + \frac{1}{1 + r^3} + \cdots \]
\[ \frac{1}{1 + r} + \frac{1}{1 + r^2} + \frac{1}{1 + r^3} + \frac{1}{1 + r^4} + \cdots \]
which series is known to express the number of which \( r^n \) is the hyperbolic logarithm. Let this number be called N, and the value of the annuity
in this case will be \( \frac{1}{r} - \frac{1}{r^N} \). If P be put for \( \frac{1}{r} \)
or the perpetuity, and y, b, g, and m, for the values of the annuity
according as it is payable, yearly, half-yearly, quarterly, or momentarily, the general theorems will then be
\[ y = P - P \times \frac{1}{1 + r} \]
\[ b = P - P \times \frac{1}{2 + r} \]
\[ g = P - P \times \frac{1}{1 + r^2} \]
\[ m = P - P \times \frac{1}{N} \]
Example I.
Let the rate of interest be 4 per cent and the term five years; and consequently \( r = 0.04, n = 5, t = 25 \), then
\[
y = 25 - 25 \times \frac{1}{1.04} = 2.4518
\]
\[
b = 25 - 25 \times \frac{1}{1.02} = 4.4913
\]
\[
q = 25 - 25 \times \frac{1}{1.01} = 4.5129
\]
\[
m = 25 - 25 \times \frac{1}{1.22198} = 4.5415
\]

Example II.
Let the rate of interest be the same, and the term for which the annuity is payable 50 years.
Then,
\[
y = 15.6226
\]
\[
b = 15.7118
\]
\[
q = 15.7094
\]
\[
m = 15.8010
\]

Example III.
Interest being the same, let the term be 50 years.
Then,
\[
y = 21.4822
\]
\[
b = 21.5491
\]
\[
q = 21.5820
\]
\[
m = 21.6160
\]

Example IV.
Interest being the same, let the term be 100 years.
Then,
\[
y = 24.505
\]
\[
b = 24.573
\]
\[
q = 24.5247
\]
\[
m = 24.542
\]

Sums may also be made payable at longer intervals than a year: such are fines required at stated times for the renewal of leases. Supposing these periods to be at the end of every \( n^\text{th} \) year, the series expressing their value will be
\[
\frac{1}{1 + r} + \frac{1}{(1 + r)^2} + \frac{1}{(1 + r)^3} + \ldots + \frac{1}{(1 + r)^n} = \frac{1}{1 + r} - 1,
\]
that is, divide \( r \) by the amount of \( r \) in \( n \) years (see Tab. I.) leant by unity, multiply the quotient by the fine, and the product will be the present value of all such fines for ever, if the first of them be payable at the end of \( n \) years. But if the fine be now due, unity must be added to the above-mentioned quotient, and the sum being multiplied by such fine, the product will be the value in this case.

Example. Supposing an estate of 100l. per annum held by lease, renewable every seven years, at a certain fine of 22l.; what is the value of such estate, computing at five per cent.? Ann. The amount of \( r \) in seven years, by Tab. I. is 1.502857.

Deducting unity from this number, and dividing 1l. by .502857, the remainder, we have 1.59 for the quotient, which, being multiplied by 22l. the given fine, produces 34.50l. for the present value of all such fines, supposing the first of them to be paid at the end of seven years. Now since the sec simple is worth 20 years purchase, or 200l. it follows that the difference between 34.50l. and 31.80l. of the value of this estate, subject to the payment of the fines every seven years. But if the fine be due, it will be worth 22l. less, or 14l. 4s.

The value of the reversion of a perpetual annuity, to be entered upon after a particular term, is "the value of the annuity for the given term subtracted from the perpetuity."
**ANNUITIES.**

Table I. continued.

<table>
<thead>
<tr>
<th>Xt at 3 per</th>
<th>35 cent.</th>
<th>4 per cent.</th>
<th>4½ per cent.</th>
<th>5 per cent.</th>
<th>6 per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>2.8012785</td>
<td>2.4402662</td>
<td>4.0723046</td>
<td>5.710847</td>
<td>8.143742</td>
</tr>
<tr>
<td>37</td>
<td>2.8320275</td>
<td>2.4023552</td>
<td>3.9749397</td>
<td>5.596301</td>
<td>7.933072</td>
</tr>
<tr>
<td>38</td>
<td>2.8630507</td>
<td>2.3663826</td>
<td>3.8789329</td>
<td>5.483013</td>
<td>7.730259</td>
</tr>
<tr>
<td>39</td>
<td>2.8943090</td>
<td>2.3324523</td>
<td>3.7845247</td>
<td>5.370137</td>
<td>7.528283</td>
</tr>
<tr>
<td>40</td>
<td>2.9258078</td>
<td>2.3005529</td>
<td>3.6917913</td>
<td>5.257678</td>
<td>7.325892</td>
</tr>
</tbody>
</table>

The numbers in this Table are the powers of 1. increased by its interest for a year: that is, they are the powers of the amount of 1. in a year, at the several rates of interest supposing r to be that amount, they are r, r², r³, r⁴, &c.

Use. To find the amount of any sum in any number of years, not exceeding 100. Ans. Opposite to the given number of years, and under the rate of interest, is the amount of 1. in that time, which, multiplied by the given sum, produces the required amount.

**Examples.**

1. What will 10l. amount to in 100 years at 4 per cent. per annum, compound interest? Ans. 50,564,48, multiplied by 10, is 505,448.

2. What will 25l. amount to in 50 years, at 5 per cent. per annum, compound interest? Ans. 11,467,64 multiplied by 250, is 2866,717.

**Table II.**

Shewing the principal that will amount to 1l. in any number of years not exceeding 100; or the present value of 1l. to be received at the end of any number of years not exceeding 100; discounting at any rate of compound interest from 3 to 6 per cent.

<table>
<thead>
<tr>
<th>X</th>
<th>A at 3 per cent.</th>
<th>3½ per cent.</th>
<th>4 per cent.</th>
<th>4½ per cent.</th>
<th>5 per cent.</th>
<th>6 per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1.970874</td>
<td>1.969182</td>
<td>1.967385</td>
<td>1.965388</td>
<td>1.963185</td>
<td>1.960783</td>
</tr>
<tr>
<td>3</td>
<td>1.941249</td>
<td>1.938266</td>
<td>1.935284</td>
<td>1.932205</td>
<td>1.929027</td>
<td>1.925754</td>
</tr>
<tr>
<td>4</td>
<td>1.912193</td>
<td>1.908974</td>
<td>1.905658</td>
<td>1.902248</td>
<td>1.898738</td>
<td>1.895126</td>
</tr>
<tr>
<td>5</td>
<td>1.883842</td>
<td>1.880326</td>
<td>1.876619</td>
<td>1.872812</td>
<td>1.868905</td>
<td>1.864894</td>
</tr>
</tbody>
</table>

**Construction of Table I.**

Vol. II.
### Table II. continued.

<table>
<thead>
<tr>
<th>Years</th>
<th>3% per Cent.</th>
<th>4% per Cent.</th>
<th>5% per Cent.</th>
<th>6% per Cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>107.628</td>
<td>104.037</td>
<td>100.446</td>
<td>96.855</td>
</tr>
<tr>
<td>2</td>
<td>214.159</td>
<td>208.074</td>
<td>202.009</td>
<td>195.949</td>
</tr>
<tr>
<td>3</td>
<td>321.691</td>
<td>314.149</td>
<td>306.544</td>
<td>298.854</td>
</tr>
<tr>
<td>4</td>
<td>429.223</td>
<td>420.017</td>
<td>410.849</td>
<td>401.602</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

### Construction of Table II.

The numbers in this Table are the reciprocals of the corresponding numbers in the last, or the quotients of unity divided, by those numbers; that is, \( \frac{1}{r}, \frac{1}{r^2}, \frac{1}{r^3}, \frac{1}{r^4}, \ldots \).

\[ r = \text{Supposing } r \text{ to denote } 1/10 \text{th with its interest for a year. Ufe. } \]

To find what the present value is of any sum payable in any future time: and also what principal will amount to a given sum in any number of years. Anf. Opposite to the given number of years, and under the rate of interest, is the present value of \( r \) to be received at the end of the given time, or the sum that will amount to \( r \) in that time, which, multiplied by the given sum, produces the required value or principal.

1. What is the present value of 1000\(\ell \) to be received in 10 years hence, reckoning compound interest at 5 per cent.? **Ans.** 615915, multiplied by 1000, is 615.19. 3d. nearly.

2. What principal will amount to 1000\(\ell \) in 10 years, at 5 per cent. per ann. compound interest? **Ans.** 613913, multiplied by 1000, is 613.19. 3d.

3. What sum put out for 25 years at 4 per cent. compound interest will clear a debt of 400\(\ell \)? **Ans.** 331731, multiplied by 4000, is 1330.19. 6d.
### TABLE III.

The present value of an annuity of 1l. for any number of years not exceeding 100, at any rate of compound interest from 3 to 6 per cent.

<table>
<thead>
<tr>
<th>Years</th>
<th>At 3 per Cent.</th>
<th>3½ per Cent.</th>
<th>4 per Cent.</th>
<th>4½ per Cent.</th>
<th>5 per Cent.</th>
<th>6 per Cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.97084</td>
<td>0.96838</td>
<td>0.96589</td>
<td>0.96338</td>
<td>0.96089</td>
<td>0.95843</td>
</tr>
<tr>
<td>2</td>
<td>1.94168</td>
<td>1.93676</td>
<td>1.93184</td>
<td>1.92692</td>
<td>1.92200</td>
<td>1.91708</td>
</tr>
<tr>
<td>3</td>
<td>2.90242</td>
<td>2.89645</td>
<td>2.89048</td>
<td>2.88450</td>
<td>2.87856</td>
<td>2.87265</td>
</tr>
<tr>
<td>4</td>
<td>3.85317</td>
<td>3.84616</td>
<td>3.83912</td>
<td>3.83210</td>
<td>3.82512</td>
<td>3.81818</td>
</tr>
<tr>
<td>5</td>
<td>4.79397</td>
<td>4.78687</td>
<td>4.77970</td>
<td>4.77250</td>
<td>4.76525</td>
<td>4.75806</td>
</tr>
<tr>
<td>6</td>
<td>5.73481</td>
<td>5.72755</td>
<td>5.72025</td>
<td>5.71290</td>
<td>5.70549</td>
<td>5.69804</td>
</tr>
<tr>
<td>8</td>
<td>7.61638</td>
<td>7.60896</td>
<td>7.60152</td>
<td>7.59402</td>
<td>7.58646</td>
<td>7.57882</td>
</tr>
<tr>
<td>9</td>
<td>8.55711</td>
<td>8.54954</td>
<td>8.54201</td>
<td>8.53445</td>
<td>8.52683</td>
<td>8.51913</td>
</tr>
</tbody>
</table>

**Construction of Table III.**

The 2d, 3d, 4th, &c. numbers in this Table, are the sums of the firft 2, 3, 4, &c. numbers in the second; that is, the sums of \( \frac{1}{r} \), \( \frac{1}{r^2} \), \( \frac{1}{r^3} \), \( \frac{1}{r^4} \), &c. of \( \frac{1}{r^p} \), \( \frac{1}{r^q} \), \( \frac{1}{r^r} \), &c.

**Use.** To find the present worth of an annuity for any given term. Multiply the present value opposite to the given number of years, and under the rate of interest, by the given annuity, and the product will be the answer.

**Example.**

What is the present value of an annuity of 40l. to continue 20 years, at 4 per cent? Ans. 13,903.60, multiplied by 40, is 543l. 12s. nearly.
### Table IV

The amount of an annuity of £1. in any number of years not exceeding 100, when improved at compound interest.

<table>
<thead>
<tr>
<th>Years</th>
<th>At 3 per Cent.</th>
<th>3½ per Cent.</th>
<th>4 per Cent.</th>
<th>4½ per Cent.</th>
<th>5 per Cent.</th>
<th>6 per Cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000000</td>
<td>1.000000</td>
<td>1.000000</td>
<td>1.000000</td>
<td>1.000000</td>
<td>1.000000</td>
</tr>
<tr>
<td>2</td>
<td>2.030203</td>
<td>2.030203</td>
<td>2.040190</td>
<td>2.040190</td>
<td>2.050500</td>
<td>2.060000</td>
</tr>
<tr>
<td>3</td>
<td>3.060503</td>
<td>3.106255</td>
<td>3.121600</td>
<td>3.121600</td>
<td>3.152500</td>
<td>3.166600</td>
</tr>
<tr>
<td>5</td>
<td>5.121212</td>
<td>5.185185</td>
<td>5.248276</td>
<td>5.248276</td>
<td>5.401234</td>
<td>5.565934</td>
</tr>
<tr>
<td>7</td>
<td>7.171717</td>
<td>7.224615</td>
<td>7.326531</td>
<td>7.326531</td>
<td>7.437500</td>
<td>7.675000</td>
</tr>
<tr>
<td>8</td>
<td>8.191919</td>
<td>8.245283</td>
<td>8.348837</td>
<td>8.348837</td>
<td>7.500000</td>
<td>7.725275</td>
</tr>
</tbody>
</table>

Note: The table continues with rows for years 11 to 50, each row providing the amount of an annuity of £1. in any number of years not exceeding 100, when improved at compound interest.
ANNUITIES.
Table IV. continued.
years.


Constitution of Table IV.

The first number of each column in this Table is unity. The second is the first number in this Table added to the first number in the first Table. The third number is the second in this table added to the second in the first table, and so on: that is, the numbers in this Table are $1, 1 + r, 1 + r + r', 1 + r + r' + r", \text{etc.}$ which series, by proceeding in the same manner as in the case of \( \frac{1}{r} + \frac{1}{r'} + \frac{1}{r''}, \text{etc.} \)

expressing the value of an annuity certain, may be found

\[
\frac{r - 1}{r - 1}
\]

Use. To find the amount of an annuity for any number of years not exceeding 100. Multiply the amount in the Table opposite to the given number of years, and under the rate of interest, by the given annuity. The product is the answer.

Examples.

1. What will an annuity of $50 an amount to in 15 years, at \( \frac{3}{4} \) per cent. compound interest? Afs. 19.925.61, multiplied by 50, is 996.256.81.

2. What is the amount of an annuity of $20, in 28 years, at 4 per cent? Afs. 49.9675. multiplied by 20, is 999.35.

3. A person is paid off 1000.00 principal, bearing 4 per cent. interest, and in order to increase his income, resolves, in addition to the interest of 400.00 to take out of his principal 200.00 the first year, and afterwards as much more as will be necessary to make a constant income of 600.00 per annum, in what time will he reduce his principal to nothing? Afs. In the same time that an annuity of 200.00 would increase at 4 per cent. compound interest to 1000.00 that is, in 28 years by the preceding question.

He that would gain farther information on this subject should consult Malcolm's Arithmetic, from page 595 to the end; Simpson's Algebra, sect. 16; Mr. Dodson's Mathematical Repository, p. 298, &c. Jones's Synopsis, ch. 10. Phil. Trans. vol. lxi, p. 109, &c.

For an explanation of the doctrine of annuities on lives, see Assurance, Complement, Expectation, Life Annuities, Mortality, Reversions, Survivories.

Annuity, in Law, is a thing very different from a rent-charge, with which it is often confounded; because a rent-charge is a burden imposed upon, and issuing out of lands; whereas, an annuity is a yearly sum, chargeable only upon the person of the grantor. Therefore, if a man by deed grant to another the sum of 200.00 per annum, without expressing out of what lands it shall issue, no land at all shall be charged with it; but it is a mere personal annuity; which is of so little account in the law, that if granted to an ecclesiastical corporation, it is not within the statutes of mortmain; and yet a man may have a real estate in it, though its security is merely personal.

If the annuitant of an annuity payable half yearly, since the last term of payment, die before the half year is completed, nothing is due for the time he lives. There are now very few, if any grants of annuities, without a covenant for payment, expressed or implied; and therefore, where a distress cannot be made, or is not approved of, the grantee may bring an action of covenant, and recover the arrears in damages, with costs of suit. And that action is now usually brought, real actions, and writs of annuity, being much out of use.

The practice of purchasing annuities for lives, at a certain price or premium, instead of advancing the fame sum on an ordinary loan, arises usually from the inability of the borrower to give the lender a permanent security for the return of the money borrowed, at any one period of time. He therefore stipulates (in effect) to repay annually, during his life, some part of the money borrowed; together with legal interest for so much of the principal as annually remains unpaid, and an additional compensation for the extraordinary hazard of losing that principal entirely by the contingency of the borrower's death; all which considerations, being calculated and blended together, will constitute the just proportion or quantum of the annuity which ought to be granted. If, by the terms of the contract, the latter's principal is boni fide (and not colourfully) put in jeopardy, no inequality of price will make it an amiable bargain; though under some circumstances of imposition, it may be relied against in equity. To throw, however, some check upon improper transactions of this kind, which are usually carried on with great secrecy, the statute 17 Geo. III. c. 26, usually called the "Annuity Act," has directed, that upon the sale of any life-annuity of more than the value of 100.00 per annum (unless on a sufficient pledge of lands in fee-simple, or stock in the public funds), the true consideration, which shall be in money only, shall be set forth and described in the security itself; and a memorial of the date of the security, of the names of the parties, estate que tristes, estate que vices, and witnesses, of the consideration money, shall, within 20 days after its execution, be enrolled in the court of Chancery; if the security shall be null and void; and in case of collusive practices respecting the consideration, the court in which any action is brought, or judgment obtained upon such collusive security, may order the same to be cancelled, and judgment (if any) to be vacated; if the security be set aside for want of complying with the formalities of the act, the consideration, if fair and legal, may be recovered back by the grantee, in action of "assumpsit" against the person actually receiving such consideration money, but not against the surey: and all contracts for the purchase of annuities from infants, shall remain utterly void, and be incapable of confirmation after such infants arrive to the age of maturity. Blackh. Com. vol. ii. p. 40—401, &c.

Annuities, Public. See National Debt and Fund.

ANNULAR, Annularis, something that relates to, or resembles a ring, by the Latins called annulus.

ANNULAR cartilage, or Annularis, in Anatomy, is the second cartilage of the larynx, being round, in shape much resembling a ring, and investing the whole larynx; called also cricoides. See Larynx.

ANNULAR clefts, in Astronomy. See Eclipse.

Annular ligaments, ligamenta annularia, is a name given to those ligaments which confine the tendons of the Carpus and Tarsus.

Add, that the sphincter muscle of the anus is also called annularis, or annular muscle, from its figure.

Annular process, or protruberance, is a prominent part of the medulla oblongata. See Brain.

Annular is also an epithet given to the fourth finger; popularly called the ring finger.

ANNULARIA, in Entomology, a species of phalena, of the geometra section. The wings are cinereous, with a brown streak, a ring in the middle, and two brown bands behind: inhabits Germany. Fabricius, Gmelin, &c.

ANNULARIS, a species of cerambyx, in the section calidium, Gmelin's arrangement. The thorax is spotted with black, wing-cases bidentated and rather greenish, with three black bands, the first annular: inhabits Siam. Fabricius and Gmelin.
Annullaria, is also a species of tenthredo, that inhabits Austria. It is shining black, tips of the antennae white, shanks of the legs ferruginous. Fabricius.

Annullaria, in Entomology, a species of chelodown. The body is flattened, and has a fan-shaped ring on the lateral line. Gmelin. The body is brown, with blue incurvated, and covered with very small scales; the irises of the eyes are silvery; Gill covers of two pieces, the anterior one of which is toothed and spinous; lateral line parallel with the back, anus in the middle of the body; anal fin, round with a streak of blue; dorsal fin, black brown, the others white. This is an ictan batocjang ake, and ican cumpus cambodia, of Valent. Ind. &c.

Annulata, in Entomology, a species of cassida, found in India, and described by Fabricius. It is blue, with two rufous spots on the thorax, and rings of the same colour on the wing-cages. Fab. and Gmelin. Ofj. This is a large species; the thorax is obscure, with a faint rufous spot on each side; wing-cages gibbous, dull blue, with fix rufous annulations; beneath, black, with a rufous dot on both sides each segment of the abdomen.

Annulata, a species of chrysomela, in the section altea. It is brown bronzed; wing-cages striated and crested; base of the antenna rufous; shanks of the anterior legs rufous, with a bronzy-brown annulation. Linneus and Gmelin.

Annulata, a species of nepa, that inhabits the coast of Coromandel. It is with a tail, subrotund, pale brown; shanks of the anterior legs pale, annulated with brown. Fabricius.

Annulata, a species of sphinx, in the Linnean arrangement; zygana, in that of Fabricius. It is black, with six yellow spots on the anterior wings; base of the posterior wings and spot yellow; abdomen annulated with yellow: inhabits New Holland.

Annulata, a species of phalaena, found in Hamburg, and described by Fabricius. The wings are black, with snowy-white spots; shanks of the legs annulated with white.

Annulata, a species of phryganae, that inhabits Europe. It is brown, with long antennae annulated with white; inner and posterior margins of the wings ciliated. Linneus, Gmelin, &c.

Annulata, a name under which two different species of tenthredo are described by Gmelin in the Syntema natural: one is the Linnean species of that name, but the other is adopted, with great impropiety, from the mantissa of Fabricius. To prevent in some measure the confusion which might evidently arise from the same name being assigned to two distinct insects, it is necessary to attend to the characters of the two sections to which they belong. Tenthredo annulata, Linnaeus, is in the section "antennis filiformibus, articulis 7—9" antennae filiform, from seven to nine articulations; and the other in that of "antennis ex-articulatis, extrorsum craflriouis," antennae without articulations, and thickset at the tip. The first species is yellow, with the antenae somewhat elevated and black; tip of the shanks and ends of the feet annulated with black. The second is black, the abdomen yellow, feet of the posterior legs black, annulated with white. Fabricius Mant. Both kinds inhabit Europe.

Annulata, a species of apis, found in Europe. It is small, and smells like musk; the colour is black; front and rings on the legs white. Linneus and Fabricius.

Annulata, a species of tipula. The wings are brown, variegated; thighs annulated with white: inhabits Europe. Linneus, Fabricius, &c.

Annulata, a species of conops that inhabits Europe. The thorax is black; abdomen cylindrical, variegated with yellow and black; base of the wings and legs ferruginous, the latter annulated with brown. Linneus and Gmelin.

Annulata, a species of podura. It is livid, with black rings; and inhabits Europe. Fabricius and Gmelin. This is podura livida lutca, annulus transversis nigris of Geoffroy.

Annulata, in Conchology, a species of ostrea, that inhabits the North Seas; and supposed by some to be a variety of oyster papyracea. The shell is oviform, orbicular, and white, with concentric semi-circles. Gmelin and Mull.

Annulata, a species of voluta. It is white, smooth, with a carinated dorso ring; its habitat is unknown, and there is a variety of it (D), undulated with pale red. Gmelin, Martini, &c.

Annulata, a species of helix. The shell is unbilicated, slightly depressed, and white; wreaths four, the first gibbous and bicarinated. Gmelin.

Annulatorius, in Entomology, a species of ichneumon, found in Great Britain, and described by Fabricius from a specimen in the cabinet of Sir Joseph Banks, Bart. The scutellum is yellowish; thorax spotted, and four first segments of the abdomen margined with yellow; wings transparent. Fabricius and Gmelin.

Annulatum, in Conchology, a species of dentula. It is round and striated obliquely; found in a fossil slate. Gmelin, Guettard, &c.

Annulatus, in Conchology, a species of trochus, found in the sands of the Indian sea. The wreaths are reversed, and ribbed on each side; aperture almost square. Gmelin, Chenm. &c. This is a small species, scarcely exceeding a quarter of an inch in length, and the number of wreaths are usually from twelve to fifteen.

Annulatus, is likewise the specific name of a shell of the turbo genus; its native place is unknown; it is figured by Guettler, and thus very concisely characterized by Gmelin; wreaths with a prominent and margined future: this shell is white, a quarter of an inch in length, aperture suboval.

Annulatus, in Entomology, a species of curculio, that inhabits North America. It is pale, thorax and wing-cages streaked with black. Fabricius and Gmelin. The streaks are disposed transversely, one upon the thorax, and two on the wing-cages.

Annulatus, a species of cerambyx, in the section lucta, having a flatish thorax, gibbous front, wings bluish-black, and blue within; it inhabits America; and is of a reddish grey, and rough, with elevated dots; abdomen annulated, with a few greenish rings; antennae yellow, with black rings.

Annulatus, a species of cimex, described by Fabricius and Gmelin as a native of Virginia. It is greyish, thighs annulated with white. This belongs to the family spinoetus, in the Gmelinian arrangement of cimices, and must not be confounded with another of the same name in the family oblongus, which is an European insect. It is black, posterior part of the thorax and anterior of the wing-cages greyish; legs annulated with brown. Gmelin. There is also another
another species of cinnix in the family rodervius, called annulatus, which likewise inhabits Europe. The tips of the antennae are capillary; body black, with fainqueous spots on the under side. Limnæus. This hal is cinnixiger typtes of Desqueer.

*Annulatus*, a species of ichtyomus, that inhabits Europe. It is black, with rufous legs; thinsk and feet of the polarier pair annulated with white. Gmelin.

*Annulatus*, a species of asilus, that inhabits India. It is cinerous; abdomen black at the end; thighs teldeous, annulated with black. Fabricius and Gmelin.

*Annulatus*, a species of coleus. It is brown; abdomen and legs annulated with white; wings spotted. Fabricius and Gmelin. In the size and shape, it resembles the common gunt (coleus piipiens); the back is half the length of the body. Inhabit Germany and Denmark.

*Annulatus*, in Ornithology, a species of oolus that inhabits America, and is considered as a bird of prey. It is yellow; head and neck black; greater wing-coverts and quil-fathers blackish, edged with pale yellow; a blackish band across the tail. Gmelin, &c.

This is the ring-tailed oriole of Latham; axis ocozintitzcan of Schub; scutum-oriole of Buffon; &c. Aria of M. Labor of Braun; and cornix flavo of Klein. It is about the size of a pigeon; the bill yellow, and a little bent at the point; head and neck black; body yellow; tail yellow; each feather marked transversely with a broad blackish band; and, which, when the tail is expanded, forms a crescent, with the concave part towards the body; legs grey.

*Annulatus*, in Zoology, a species of culkur; described by Linnaeus and Gmelin, as having 190 abdominal scuta or plates on the belly, and 96 subcaudal scales; but it appears from fynonymous authors, that the number of these plates and scales vary exceedingly in different specimens, and that its specific characters should rather be taken from the colour, form and disposition of the spots, which are less liable to variations: in one instance, for example, the abdominal scuta amounted to only 184, and the subcaudal scales to 60; in another to 186—84; and in a third to 186—95. Its general description is, back, cinereous grey, brownish, or brownish-white, with a band, or series of round, alternate, brown spots, that occasionally join or become confluent, especially at some distance down the neck, and are surrounded with pale margins; belly white. Dr. Shaw's specific character is, C. griseus, maculos dusfibius rotundus fulcis palido marginatis. Grey male, with round, brown, dorai spots, with pale margins. Vol. iii. p. 4. 45o.

This creature inhabits America, is from a foot and a half to two or three feet in length; the head is rather large, as are also the scales that cover it; the tail gradually tapering.

*Annulatus*, a species of anguis, of a white colour, with straight brown stripes that meet on the under side; tail tapering, and a double row of imbricated scales beneath. Laf. Gmelin.

*Annulet*, from the Latin annulius, a ring, in Heraldry, granted in coat-armour to those who were in con- fidence, or enfruited with eptical conmions by the king; the annulet, or ring, being the gage of the royal favour and protection. It is also borne as a mark of filtration for the fifth foa. The colour of the annulet must always be expressed.

Annulats were much exhibited as a mark of nobility and jurisdiction; it being the custom of prelates to receive their insignia for baccan and annulat.

*Annulatus*, in Architecture, are small square members, in the Doric capital, placed under the quarter ground. They are also called silius, latles, &c.

*Annulatus* is also used for a narrow flat moulding, common to other parts of a column; viz. the bases, &c. as well as the capital; to called, because it encompasses the column around. In which sense annulet is frequently used for bayonett, or little folding.

*Annulling*, a compound of ad and annulus, noun; q. d. undoing; the abolishing of an act, procedure, sentence, or the like.

*Annulosis*, in Entomology, a species of ichthyomus, found in Europe. It is black; antennae slightly annulated with black; legs rufous; flight short. Linnaeus and Gmelin.

*Annulus*, in Conchology, a species of cypria, very common about Amboyina, and also Alexandreia. It is of an ochreous colour on the outside, and blue within. Its specific character is, frill surrouned on the back with a yellow ring. Linnaeus and Gmelin. This is the thoracicium quadratum of Runphius.

*Annulus*, in Entomology, a species of cassisida, that inhabits Cayenne. It is yellowish, brown in the centre, and annulated in the middle with yellow. Fabricius, Spec. Inf.

*Annulus*, a species of avis, grey and downy, thorax black; and a black clouded band in the middle of the abdomen. Linnaeus and Gmelin. Inhabit Europe.

*Annulus*, or Ring, in Geometry. The area of it may be had by finding the areas of the outer and inner circles, and their difference is the area required. Or, multiply the sum of the diameters by their difference, and the product by 7854.

*Annunciation*, or Anunciation. This order was instituted by Ame VI. earl of Savoy, under the title of the *Collar*, in 1367, in honour of the fifteen divine mysteries of the rota. Favin, on a mistaken ground, calls it *The Order of the Menes of Love*, in regard its founder had received of his lady a bracelet made of the trellies of her hair, plated in love-knots; and that the Founder should signify frapets, entras, rompes tout. It remained, however, as the collar, till Charles II. or Le-bon, duke of Savoy, who bellowed on it the title of the *Annunciation*, from the picture of the Annunciation which he annexed to the picture of the Collar. The founder appointed the number of knihts to be fifteen; among whom was Sir Richard Mufard, an English gentleman, in 1434; their number was increased in 1568; to twenty. Rien caselle, in Burger, was their principal feast. The ancient collar was of gold, three fingers broad; on which were engraved the letters F.E.R.T. and one knot, called the Savoy Knot, at the end of each F.E.R.T., which, with three other knots enenumerate one within the other, made up the circumference pendant at the collar, without any figure. The initials were supposed to be for the words Fortitudo Deus Rhodum Temet, alluding to Anandus le Grand, who so valiantly defended Rhodes against the Turks in 1310. This, however, was long after the house of Savoy took that device; as appears from the coins of Lewis de Savoy, baron de Vaucl, who died in 1301; as also from the monument of Thomas de Savoy, who died in 1239, when several was lying at the feet of his portraiture, a dog, bearing a collor about his neck, with the word Fert; also a silver coin of Peter de Savoy (who erected in England the building of that name in the Strand, temp. Hen. III.) wherein is the word Fert, in Gothic characters. Duke Charles III. farnamed the Good, in 1518, ordered that the badge or mystery of the Annunciation of the Blessed Virgin should be represented within a circle of gold, formed of true-
true-lover's knot, pendant to the collar, which was to be of gold, weighing two hundred gold crowns, and composed of the letters F. E. T. intermixed with true-lover's knots, separated by fifteen rosen of gold, five of them enamelled rubie, five red, and five partly rubie and red, and edged with two thorns gold. The knights wear in common the badge pendant to three small chains of gold round the neck. The reigning king of Sardinia is sovereign of the order.

ANNUNCIATION, compounded of ad and nuncio, I declare, the tidings which the angel Gabriel brought to the Holy Virgin, of the incarnation of Christ.

The Greeks call it κοινήσεα, good tidings, and καταναστασις, signalation.

ANNUNCIATION is also the name of a feast, celebrated annually on the 25th of March, popularly called Lady-day, in commemoration of that wonderful event.

Some authors are of opinion, that the feast was originally solemnized in honour of our Saviour; and that the holding it in the name and honour of the Virgin is of much later standing. This feast seems to be of great antiquity. Among the fermons of St. Augustine, who died in 430, we have two upon the Annunciation. Proculus, who died in 468, and Chrysostom in 407, have, in their works, discourses on this subject. But the Protestant writers reject these authorities, and the writings on which they are founded, as fpiromus. Bingham refers the commencement of this feast to the fourteenth century.

Several of the eastern churches celebrate the Annunciation at a different season from those of the west. The Syrians call it Reza, q. d. search, inquiry; and mark it in the calendar for the first day of December. The Armenians hold it on the fifth of January; thus anticipating the time, to prevent its falling in Lent; but the Greeks make no scruple of celebrating the festival even in Lent. In the west likewise, there has been some variation as to the time of keeping this feast. The tenth council of Toledo, in 639, ordained it to be celebrated eight days before Christmas.

The Jews also give the title Annunciation to part of the ceremony of their passover; viz. that, wherein they explain the origin and occasion of that solemnity. This explanation they call נס בָּנָן, Haggada, q. d. the Annunciation.

ANNUNCiator, in the Greek Church, an officer whose business is to give notice of the feasts and holydays to be observed.

ANNUNTIate, Annuntiada, or Annuntiata, a denomination common to several orders, both religious and military; instituted with a view to the Annunciation. The first religious order of this kind was instituted in 1232, by seven Florentine merchants. These are also called servites, q. d. servants.

The second was a nunnery at Bourges, founded in 1500, by Joan of Valois, queen of France, after her divorce from Lewis XII.

The third also a nunnery, founded by a Genevoise lady in 1604. The fourth was a friary, founded by Cardinal Torrecrema, at Rome, in 1463; which last became so very rich, that it gave fortunes of 60 Roman crowns to above four hundred girls, on the anniversary of the Annunciation.

ANNY, in Geography, a river of France, on the coast of the English channel, north of the river Soame, and south from Boulogne.

ANO, in Zoology, bos bulalus amus, a variety of the buffalo, mentioned by Pennant, Hist. of Quadr. vol. i. Vol. II.

p. 30. This animal is about the size of a middling sheep; it inhabits the mountains of Celebes; is very fierce, lives in small herds, sheltering itself in the caverns of the mountains; is caught with difficulty, and is very impatient of confinement.

ANOBIUM, in Entomology, a genus of coleopterous insects, in the Fabrian system, having four clavate palpi, or feelers; jaws obtuse and dentated; lip entire; and antennae filiform; with the three extreme joints elongated, and rather thicker than the others. Fabrius. This genus includes some insects of the ptinus and dermestes genera, of the Linean system, and byrrhus of Geoffroy; besides some new species not described by either. In the species infectorum, the species of this genus are, pterinax, molle, frumentaria, flavipes, nigriurn, lintumatum, cyanum, & minutum, in all eight species; the arrangement in the last system of that author, Entomologia Systematica, is somewhat different, being testellatum, litteratum, rupipes, cattaneum, pterinax, bolchi, molle, panicum, ablectis, planum, capefle, minutum, mecanis, & nitidum.

Oliver adopts the genus anobium after Fabrius, describing the species testellatum, litteratum, cattaneum, & panicum, as insects of that genus; and Gmelin, in the Systema Naturae, makes the first division of the ptinus of Linnaeus, "palpis clavatis," (clavate feelers), anobiurn of Fab. to distinguish them from the true ptini which have the feelers filiform. Professor Thunberg has also described several species of anobiurn in his Nov. Inf. as rutipes, cervicium, &c, but which Gmelin configns to the dermestes genus in the Linean system.

ANOCYUSTI, an imaginary name of a medicin, concerning which many fruitless conjectures have been made. The word occurs only in Gaza's translation of the account which Theophrastus has left us of the eunymus of those times. The author says, that the goats which eat the leaves and fruit of the eunymus were killed by it, and that they died of a leprosy of the bowels, which he has expressed by the word ἀνοξυς, derived from the verb ἀνόξυσι, which signifies a retention of the fluids.

It is to be observed by the way, that the eunymus of the Greeks could not be the same plant known at this time by that name, since the cattle eat our euonymus or fusiform whenever they can get it, and that without any danger; but the descriptions of those plants in the ancient and modern authors shew also that they were very different.

ANOCYSTORON, in Eecrolofical History, a name used by some writers for a church.

Anocystora properly import Roman halls, divers of which were converted into churches. In which sense anocystora amount to much the same with basilica.

ANOCYSTI, in Natural History, the name of one of the subdivisions of echinus genus, in the arrangement of Klein and other naturalists; consisting of such as have the vent at the top of the shell, and all the tentacula simple, (ano verticali, tentacula undique simplicibus). This is the first of the three principal divisions of the echinus in the Linean system, by Gmelin; the second is britius of Müller, in which the vent is situated at the bottom of the shell, and the mouth dillitius of tentacula; the third is spatangi of Müller, having the vent on the side, and the mouth furnished with pencilled tentacula. Each of these divisions are again subdivided according to the shape of the shell. See Ec Translator.

ANODA, in Botany. See Sida.

In Gmelin's edition of Linnaeus, anoda is a genus of the monadelphia polyandra class and order; the characters of which
which are, that the caless is simple, semiquinquefid, permanent, and very much diluted by the ripe fruit; and the cap-

folae is many-celled, above hemispherical, beneath flat-

plane, with stiff-edged cells. There are three species.

1. A. delitiosa, with triangular leaves, the lower cutened,

the upper oblongely cutened and petiolated, with pedun-

cles axillary, single-flowered, and very long. 2. A. balsate,

sida crisata, with corded, angular leaves; the upper elon-

gated and halated, with very long, axillary, and single-

flowered peduncles. 3. A. triloba, with the inferior leaves
cordated, somewhat angular and cutened; the upper tri-

lobed, with axillary, solitary, very long, and single-flowered

peduncles.

ANOYNE, derived from the privative a, and obsta,
dole, to be in pain, in Phvsic, is understood of such reme-
dies, as calm and allay pain. It is now generally em-
ployed for those medicines which relieve pain by diminu-
ing or destroying sensibility; and in this sense, the general
term is allowable.

Anodynes are of two kinds; the first proper, called also

dosages. The second febulous, or improper, which rather

sharpen than alleviate; acting only by inducing a fluctu-
dousness, or sleep. These are more properly called narco-
sic, hypnotics, or opiates.

The true anodynes are applied externally to the part af-
fected. Such, among the class of simples, are the onion,
lily, root ofmallows, leaves of violets, elder, &c. Cam-
pohor is said to be the best anodyne in nervous cafes, and at
the decline of fevers.

Anodynes should not be given without great caution, nor
on a full stomach, nor in droppies. Hemlock procures ease
and sleep, without caufing that head-ach next morning,
usually complained of after taking opium. If the pulse be
strong, a larger dose is safe; if weak, a less dose must be
given.

We have also certain compound medicines in the shops,
pread with this intention, and called by this name. Such
is the anodyne liniment, commonly called anodyne laflisum,
pread in the following manner: take of opium one ounce,
white Caliie soap four ounces, camphor two ounces, essen-
tial oil of rosemary half an ounce, and rectified spirit of wine
two pounds; digest the opium and soap in the spirit for
three days; then to the strained liquor add the camphor
and oil, diligently shaking the vefsel. It is re-
mended not only for procuring ease in the most racking
extremities of pain, but also for allifying in discharging
the peccant matters that occafioned it. This laflisum is much
the fame with the modern opodelco. A ready way of prepa-
ring an useful, safe, and efficacious anodyne, is as follows: take
half an ounce of opium, dissolve it in a gentle heat in three
ounces of water, stir the solution, and evaporate it to a
dry fhubance; grind this to powder in a glaf's mortar with
twice the quantity of loof-lugar, and you have an excellent
preparation of opium, to be given three or four grains for a

By dissolving the opium thus in water, we get rid, not
only of its grubs and foul parts, but also of its reffinous,
which are found much more pernicious than the cell; and
by dividing its parts afterwards with sugar, the medicine
is rendered more uniform, refidue, and mifeible with ani-
mal fluids.

But however opium is prepared, it still must be acknow-
ledged, that it retains qualities that make it little les than
a poifon in a very large dose; whence it were much to be
willed something could be found that would be more inno-
cent, and yet answer the fame purpofe. And this camphor
and nitre will do on many, though not on all occasions.

An anodyne ointment may be prepared, by mixing ten
drams of olive oil, half an ounce of yellow wax, and one
 dram of crude opium. Opiurn, thus externally applied,
will in some degree produce the fame effect, as when it is
used under the form of anodyne laflisum, in which it teate
produces effects more immediately; but under this form, its
effects are more permanent. The present ointment also fur-
vives an useful drugging for forces attended with twere pain.
For Hoffman's anodyne, see Liquor Minerais Anodynes.

ANOINTED. See Christ, and Messiah.

ANOINTING, in Ecclesiastical History, a religiouf fict
formerly jubilating in fonie parts of England, fo called from
the ceremony they used in anointing all person's before they
admitted them into their church. They founded their opinion
of anointing upon the fifth of James, verfes 14 and 15.
See Plott's Oxfordh. 268.

ANOINTING, a term used by painters. It implies their
method of reftoring the effect of the colours, after the oil
has been drained out of them, by the aborption of the
ground of the picture, or the former coat or layer of col-
ours, whilst they were drying, termed improperly the fink-
ings of the colours. This anointing is performed by means
of varnish, oil, or both together, rubbed in with an hard
hogs hair tool. Besides reftoring the appearance of the
colours, it has another effect; that of disposing the picture
to receive with advantage the future touches of the brush or
pencil. When the anointing is newly laid on, it promotes
leftness and union; and when almoft, but not perfectly dry,
it difposes the picture to receive smurt or crank touches.
Some painters have been more liberal in the quantity of var-
nish, &c. in anointing than may be judicious; too much oil
should not be applied to the more brilliant and lighter parts
of pictures; nor should japanners' gold-fize be introduced in
anointing, unlefs with great caution.

Without an application of this nature, it would be almost
impossible for the painter of delicate works to proceed with
any degree of certainty. The best mixture for this purpo,
se, is an equal quantity of ftrong drying oil and maltich varn
th united. This will retain its clammy nature long enough
for the purpo of the artift, while he covers with paint the
aonted portion.

Thoef who proceed more slowly with the pencil than is
ufual, will do well to ufe a little fat linseed oil with the mix-
ture we have mentioned, which will not so soon grow hard
or dry. Gerrard Lairesfe, whose pictures retain their col-
lours, has recommended this mixture with fat oil, upon re-
touching pictures; and this in a plentiful manner, in order
that the picture may not require varnifhing. On the con-
trary, Mr. Bardwell recommends the anointing as neceffary,
but that almoft the whole should be wiped o££ with an old
filk handkerchief, before the paint is applied to the picture.
The glazing colours should in general be applied with a liberal
ufe of the anointing mixture; and those colours which are ued
in the feubbing of pictures should be employed more
sparingly. See Glazing and Scumbling. Tiffian appears
to have proceeded in this manner with his pictures, and to
have thus produced his most admirable effects.

ANOLE, in Zoology, the name of a species of lizard
common in the West Indies, about houses and plantations.
It is of the size of the common lizard of Europe, but its head
is longer; its skin is of a yellowish colour, and its back va-
riegated with green, blue, and grey lines running from the
neck to the tail. They creep into holea for the night, and
there make a continual and very disagreable noise; in the
day time, they are always in motion.

ANOLYMPIDES, in Antiquity, a name given by the
Eleans to thofe Olympic games which had been celebrated
under
under the direction of the Pisans and Arcadians. The
Eleans claimed the sole right of managing the Olympic
games, in which they sometimes met with competitors.
The hundred and fourth Olympiad was celebrated by order of the
Arcadians, by whom the Eleans were at that time reduced
very low; this, as well as those managed by the inhabitants of
Pisa, they called ανομαλαισεως, unlawful Olympiads, and
left them out of their annals, wherein the names of the vic-
tors, and other occurrences, were registered. Potter, Arch.
Greece.

ANOMALIA, in Conchology, a species of patella, in
the family "integrigem abique vertice mucronato." It is a
coarse, brown, orbicular shell, with the vertex submarginal;
and inhabits the deeps of the Norway seas. Mull. This shell
is minute and rough, with fine elevated dots; sometimes of
a cinereous colour, and blue beneath. The animal con-
fits of two reddish, tough, twittled mafles, which are fringed
the whole length; the fringes are yellow, composed of rigid
hairs, and connected with the rest of the body by a blue ten-
don; the ovaries are ramose, and orange; the eggs globose.
It is uncertain whether this shell belongs to the patella
genus or not. Mull. Gmelin.

ANOMALISTICAL Year, in Astronomy, called also
periodical year, is the space of time in which the earth pas-
ses through her orbit.

The anomalistical, or common year, is somewhat longer
than the tropical year; by reason of the precession of the
equinox. The apses of all the planets have a similar pro-
gressive motion; whence they take a longer time in arriving
at the aphelion, which has advanced a little, than in attain-
ing to the same fixed star. E. G. The tropical revolution of
the sun, with respect to the equinox, is 365° 5' 46.26",; but
the sidereal revolution, or return to the same fixed star, is
365° 6' 10½", and the anomalistical revolution is 365° 6'
15½", because the sun's apogee advances each year 63' 36" with
respect to the equinoxes; and the sun cannot arrive at the
aphelion till he has passed over 63½° more than the revolu-
tion of the year answering to the equinoctes. To find the
anomalistical revolution, use this proportion: As the whole
fcecular motion of a planet, minus the motion of its aphelion,
is to 100 years, or 3155760000 seconds, so is 360° to
the duration of the anomalistical revolution.

ANOMALOUS, irregular, something that deviates
from the ordinary rule and method of other things of the
same kind.

The word is not compounded of the privative α and τοπος,
locus, as is usually imagined; for whence, on such supposi-
tion, should the last syllable α, arise? But it comes from the
Greek ανομος, ounemos, rough, irregular, formed of the pri-
ватive α and μος, plain, even.

ANOMALOUS verbs, in Grammar, are such as are irregu-
lar in their conjugations; deviating from the rules or formu-
las observed by others.

There are anomalous verbs, or irregular inflexions of verbs,
in all languages. In the English, the chief irregularity of
our anomalous verbs lies in the formation of the preter ten-
se, and passive participle; though this only holds of the native
Teutonic or Saxon words, and not of the foreign words, bor-
rowed from the Latin, French, &c.

The principal irregularity arises from the quickness of our
pronunciation, whereby we change the consonant d into t,
cutting off the regular ending ed.

Thus for mixed, we write mixt or mixt'd; for dwelled,
dwell'd, or dwell'd; for intrusted, intrusted, &c. But this prop-
erty is rather of the nature of a contraction than an irregu-
larity; and is complained of by some of our polite writers
as an abuse, to the disadvantage of our language, tending to
disfigure it, and turn a tenth part of our smoothest words
into clusters of consonants; which is the more inexcusable,
because our want of vowels has been the general complaint
of the hell writers.

Another irregularity relates to the preter tense, and pas-
itive participle. Thus give, if it were regular, or formed
according to the rule, would make given, in the preter tense,
and the passive participle; whereas it makes gave in the pre-
ter tense, and given in the passive participle.

ANOMALY, in Grammar, denotes an irregularity in
the accidents of a word, whereby it deviates from the com-
mon rules of paradigms, whereby other words of the like
kind are governed.

ANOMALY, in Astronomy, is an irregularity in the motion
of a planet, whereby it deviates from the aphe lion or apoge,
or the angular distance of a planet from the aphe lion or apo-
ge; that is, the angle formed by the line of the apsides,
and another line drawn through the planet.

Kepler distinguishes three kinds of anomaly; mean, eccen-
tric, and true.

ANOMALY, mean, or simple, in the Ancient Astronomy,
is the distance of a planet's mean place from the apogee, which
Ptolemy calls the angle of mean motion.

In the modern astronomy, it is the time in which a pla-
net, describing an ellipse APQ (Plate I., Astronomy, fig. 9.),
round the sun in the focus, moves from its aphe lion A, to
the mean place or point of its orbit P; or, it is the angular
distance of the planet at a given time from the aphe lion,
-supposing that it had moved uniformly with its mean angular
velocity.

Hence, as the elliptic area ASP, is proportional to the
time in which the planet describes the arc AP; the area
may represent the mean anomaly. Or thus, the area ASN,
found by drawing a line through the planet's place
perpendicular to the line of the apsides AQ', till it cuts the
circle AVQ, and drawing the line SN, may represent the
mean anomaly; for this area is every where proportional
to the former area ASP, as is demonstrated by Dr. Gregory,
Phil. Trans. No. 447. Or, if ST be drawn perpendicular
to the radius NC produced, then the mean anomaly will be
proportional to ST + the circular arc AN, as Keil has
demonstrated in his "Astronomical Lectures," Lect. II.
Hence, if ND be taken equal to ST, the arc AD, or the
angle ACD, will be the mean anomaly for practical pur-
pose, expressed in the degrees of a circle; the number of
the degrees being to 360°, as the elliptic trinacul area ASP,
is to the whole area of the ellipse; and the degrees of mean
anomaly are those contained in the arc AD, or angle ACD.

ANOMALY of the eccentric, or of the centre, in the Modern
Astronomy, is an arc AK, of the eccentric circle (fig. 9.),
included between the aphe lion A, and a right line NI,
drawn through the centre of the planet P, perpendicularly
to the line of the apsides AQ; or, it is the angle AKN at
the centre of the circle. Hence the eccentric anomaly to
the mean anomaly, as AN to AN + ST; or, as AN to
AD; or, as the angle AKN to the angle ACD.

In the Ancient Astronomy, it is an arc of the zodiac, ter-
minal of the line of the apsides, and the line of the mean
motion of the centre. See the methods of finding the an-
omaly of the eccentric, in Phil. Trans. No. 447.

ANOMALY, true, or equalled, is the angle at the fun
ASP, under which a planet's distance AP from the aphe lion
appears; or, it is the angle or area, taken proportional to the
time in which the planet moves from the mean place P, to
its aphe lion A; or, in other words, it is the angle formed by
the

Y y 2
the radius vector, or line SP, drawn from the sun to the planet, with the line of the apsides.

Hence, in the sun's motion, it will be the distance of his true place from the apogee.

The true anomaly being given, the mean one is easily found. But it is much more difficult to find the true anomaly from the mean anomaly given, at least by any direct process. Kepler, who first proposed this problem, and from whom it is called "Kepler's Problem," could not find a direct method of resolving it, and therefore used an indirect one, by the rule of false position; as may be seen in Kepler's Epitome Astron. Copenh. p. 607. See also Wolffius's Elem. Astron. and the treatise of the area ASP in the whole ellipse, or of the mean anomaly to 360°. For the further illustration of this subject, let a body move uniformly in the circle from A to D with the mean angular velocity of the body in the ellipse, whilst the body moves in the ellipse from A to P; then, from what has been above stated, the angle ACD is the mean, and the angle ASP the true anomaly; and the difference of these two angles is called the equation of the planet's centre, or PROSOPHYESIS. Let \( \phi \) = the periodic time in the ellipse or circle (the periodic times being supposed equal), and \( t \) = the time of describing AP or AD; then, as the bodies in the ellipse and circle describe equal areas in equal times, about S and C respectively, we have the area ABD = area of the circle \( \pi r^2 \); and area of the ellipse: area ASP :: \( \phi : t \); also the area of the circle = area ASP :: \( \phi : t \); consequently the area ACD = area ASP = area ACN = area ASP; and hence ACD = ACN; from both which, let the area ACN, which is common, be taken away, and the area DCN = SNC; but DCN = \( \frac{1}{2} DN \times CN \), and SNC = \( \frac{1}{2} ST \times CN \); therefore ST = DN. Now if \( t \) be given, the arc AD will be given; for as the body in the circle moves uniformly, we have \( \phi : t = 360^\circ : AD \). Thus we always find the mean anomaly at any given time, provided that the time be known when the body was in the apsides; hence, by finding ST or ND, we shall know the angle ANC, called the eccentric anomaly, from whence, by one proportion, we shall be able to find the angle ASP the true anomaly. The problem is therefore reduced to this: to find a triangle CST, such that the angle C + the degrees of an arc equal to ST may be equal to the given angle ACD. This may be expeditiously done by trial in the following manner, given by M. de la Caille in his Astronomy. Find what arc of the circumference of the circle ADQE is equal to CA, by faying. 355 : 113 :: 180 : 57° 17' 44" ; 8 the number of degrees of an arc equal in length to the radius CA; hence CA : CS :: 57° 17' 44" : 8; the degrees of an arc equal to CS. Alterm, therefore, the angle SCT, multiply its line into the degrees in CS, and add it to the angle SCT, and if it equal the given angle ACD, the fapposition was right; if not, add or subtract the difference to or from the first fapposition, according as the result is less or greater than ACD, and repeat the operation, and in a very few trials you will obtain the accurate value of the angle SCT. The degrees in ST may be most readily obtained by adding the logarithm of CS to the logarithm of the sine of the angle SCT, and subtracting 10 from the index, and the remainder will be the logarithm of the degrees of ST.

Having found the value of AN, or of the angle ACN, the eccentric anomaly, we may proceed to find the angle ASP, or the true anomaly.

Let \( \alpha \) be the other focus, and put AC = 1; then by

\[
\begin{align*}
\text{Encl. b. ii. prop. 1.} & \quad SP' = Ps' = 48^\circ + 32^\circ \times 11 = 50^\circ + 38^\circ = 2 \times 32^\circ + 32^\circ = 2SC = SC = SP - Ps; \quad \text{or} \quad 2: 2C = SC; \quad SP' = 2 - SP, \quad \text{or} \quad 1: C = SC; \quad SP - 1; \quad \text{hence} \quad SP = 1 + CS = 1 = SC \times CS; \quad \text{hence} \quad CS \times CS = 1 + CS \times SC \times CS = 1 \times CS \times CS \times CS = 1 \times \text{ACN} \times \text{ACN}; \quad \text{hence} \quad \text{AS} = \text{ACN} \times \text{ACN} = \frac{1}{1 + \text{ACN} \times \text{ACN}} = \text{ACN} \times \text{ACN} \times \text{ACN};
\end{align*}
\]

Hence \( \tan \left( \frac{1}{2} \text{ACN} \right) = \frac{1}{\text{ACN}} \times \text{ACN} \times \text{ACN}; \quad \text{and} \quad \sqrt{\text{ACN} \times \text{ACN}} = \text{ACN} \times \text{ACN} \times \text{ACN}; \quad \text{therefore} \quad \sqrt{\text{ACN} \times \text{ACN}} = \text{ACN} \times \text{ACN} \times \text{ACN}.

\[\text{46341749} \quad 90175306 \log. \text{of} \quad 216000 \quad = a \quad 45717055 \quad - \quad 37300 \quad = 25300 \quad 2463288 \quad - \quad 6912 \quad = b \quad 46341749 \quad 90287087 \quad - \quad 200588 \quad = a - b = 38^\circ 4' 48" = c \quad 45692329 \quad - \quad 36557 \quad = 246545 \quad 246388 \quad - \quad 743 \quad = d \quad 46341749 \quad 90297694 \quad - \quad 200931 \quad = c + d = 58^\circ 17' 11" = e \quad 45639413 \quad - \quad 36639 \quad = 246479 \quad 246388 \quad - \quad 82 \quad = f \quad 46341749 \quad 7 \]
ANOMALY.

\[ 4.6341749 \]
\[ 9.0926626 \]
\[ 4.5637175 \]
\[ 36930 \]
\[ 25679 \]
\[ 249388 \]
\[ 9 = \beta \]

Hence, as the difference between the value deduced from the assumption and the true value is now diminished about 9 times every operation, the next difference would be \( \frac{1}{10} \); if, therefore, we add \( \frac{1}{10} \) to \( \beta \), and then subtract \( \frac{1}{10} \), we get \( 55^{15}'57'' \) for the true value of the angle ACN, the eccentric anomaly. Hence we may find the true anomaly AS from the proportion above given, by logarithms, in the following manner:

\[ \log \text{tang. } 29^{9}'5''58'' \left( \frac{1}{2} \text{ACN} \right) = 9.7466246 \]
\[ \frac{1}{2} \log \text{SQ} = \text{CA} - \text{CS} = 10111276 - 211165 = 2.9517531 \]
\[ \frac{1}{2} \log \text{SA} = \text{CA} + \text{CS} = 10111276 + 211165 = 3.0436141 \]
\[ \log \text{tang. } 24^{9}'16''15'' \left( \frac{1}{4} \text{ASP} \right) = 9.6510836 \]

Hence the true anomaly is \( 48^{30}'30'' \). Since the aphelion \( A \) was in \( 81^9 \), \( 5430' \), the mean place of Mercury was \( 10^{20}'27'' \). And hence \( 68^{9}'26'28'' - 48^{29}'32'30'' = 19^{9}'55'' \), the equation of the centre. Also \( \text{SP} = 1 + \text{CS} \times \cos \text{ACN} = 111983 \) the distance of Mercury from the sun, the radius of the circle, or the mean distance of the planet, being unity.

As the bodies at \( D \) and \( P \) are supposed to have departed from \( A \) at the same time, and will coincide again at \( Q \), ADQ and APQ being performed in half the time of a revolution; and as \( D \) is the place of the planet with its least angular velocity, therefore from \( A \) to \( Q \), or in the first fix signs of anomaly, the angle ACD will be greater than ASP, or the mean will be greater than the true anomaly; but from \( Q \) to \( A \), or in the fix signs, as the planet at \( Q \) moves with its greatest angular velocity, the true will be greater than the mean anomaly. Hence the eccentricity, and consequently the angle NCD, is very small, as in the orbits of Venus and the earth, ND considered as very nearly a straight line, will be equal and parallel to \( ST \); in which case SD is parallel to CN, and consequently the angle NCD = DCN. In the triangle DCS, the two sides DC and CS, and the included angle DCN, the supplement of DCA, are known; and hence we can find the angle CDS or DCN. If DCN be not greater than \( 15' \), the conclusion will be accurate to a second. When the angle DCA is not very small, M. Ca1mii, in his "Elements of Astronomy," p. 144, has given the following method of finding it: draw \( Dz \) perpendicular to \( ST \), and \( Tz \) is the sine of the arc DN; consequently \( Sz \) is the difference between the arc DN and its sine, or between the arc of the angle CDS and its sine; compute, therefore, the angle CDS, and from a table showing the difference between the arces of a circle and their sines, to a given radius, take the difference between the arc and its sine; lay \( \text{AD} = Sz \); \( z \) rad.: fine SDC, which subtract from the angle SDC, and you have the angle \( \angle \text{DCN} \), or the alternate angle DCN. The result of the operation is the same before.

\[ \text{E. C. To find the true anomaly of Mercury, the mean being } 60'. \quad \text{Let the mean distance of Mercury be } 1000000, \text{ and the eccentricity } CS = 20878, \text{ according to Caffini; hence, in the triangle DCS, } DC = 1000099, \text{ CS} = 20878, \text{ and the angle DCS} = 120\text{°}; \] therefore \( \angle \text{DCN} = 11905\text{°}, \) and the angle SDC = \( 50\text{°}17'52'' \), corresponding to which, in such a table as that just mentioned, will be the value of \( Sz = 71200; \) hence, 11905 - 71200 rad.: fine of \( Sz = 2'11'' \), which, subtracted from \( 17'52'' \), leaves \( 9'15'44'' \) for the angle DCN, which, subtracted from \( 60\text{°} \), leaves \( 50\text{°}44'16'' \) for the angle NCA. Hence,

\[ \frac{1}{2} \log \text{SQ} = 79112 - 2494185 \]
\[ \frac{1}{2} \log \text{SA} = 120878 + 3541173 \]

Hence the true anomaly is \( 41^{9}58'36'' \); and the equation of the centre is \( 18^1'24'' \).

The first geometrical solution of Kepler's problem, was that of Dr. Wallis, by means of the protracted cycloid; which was also effected in a similar manner, by Sir Isaac Newton, in his "Principia," lib. i. prop. 31. But these methods being unfit for the purpose of the practical astronomer, many approximations have been given by various series; of these, several have been proposed by Sir Isaac Newton in his "Fragmenta Epitola," p. 261, and also in the Scholium to the proposition above-mentioned, which is the bell, as it is adapted not only to the planets, but also to the comets, whose orbits are very eccentric. Dr. Gregory, in his "Aphelion," lib. iii. has also given the solution by a series; as well as M. de la Lande, in his "Analyse Demontrée," p. 71, &c. The method ascribed to some writers to Dr. Seth Ward, professor of astronomy at Oxford, and published in his "Astronomia Geometrica," in 1634, though M. de la Lande observes, that it is given both by Ward and Mercator to Bullialdus, is less accurate than such as have been already given in this article; and yet it may serve, in many cases, as an useful approximation. He assumed (fig. 10.) the angular velocity about the other focus \( v \) to be uniform, which is not strictly true, and therefore made it represent the mean anomaly. Produce \( vP \), and take \( PR = PS \); then in the triangle \( \Delta \text{Sv} = R + vS = \Delta \text{Sv} = \frac{1}{2} \Delta \text{SQ} + \frac{1}{2} \Delta \text{SR} + vS = \frac{1}{2} \Delta \text{SQ} - \frac{1}{2} \Delta \text{SR} = \Delta \text{AP} \); and \( \frac{1}{2} \Delta \text{SQ} - \frac{1}{2} \Delta \text{SR} = \frac{1}{2} \Delta \text{ASP} \). Hence the aphelion distance: the perihelion distance \( = \frac{1}{2} \Delta \text{mean anomaly} = \frac{1}{2} \Delta \text{true anomaly} \). This method is called "the simple elliptic hypothesis," and was used by Dr. Halley in constructing his "Tabula pro exportinge calculo equationum centri Luna." This method is not sufficiently accurate, when the orbit is very eccentric, as in that of the planet Mars, which Bullialdus has shown in his defence of the "Philhologic Aphelion," against Dr. Ward. However, when Newton's correction is made, as in the Scholium above-mentioned, and the problem resolved according to Ward's hypothesis, Sir Isaac affirms, that, even in the orbit of Mars, there will arise even be an error of more than one second.

Although the indirect methods above given, are in general the best for practice, we shall here subjoin the direct method of Dr. Kell, as the most simple, and because it may frequently be applied to advantage. Let the arc ND (fig. 9) = \( \frac{1}{2} \Delta \text{AD} = v \); \( e \) the value of \( AD \); \( f = \) the cofine, \( SC = g \). Then by trigonometry, the line of \( NA = \frac{1}{2} \frac{f^3}{2} + \frac{f^3}{2.3} + \) &c. hence the line of \( AN = e - \)
\[ f^2 - \frac{f^2}{2} + \frac{f^2}{3} = \text{sec}. \text{ Also rad.} = 1 : \text{fin.} \]
\[ AN or \angle \text{SCI} = \angle = \text{a} : \text{ST} \text{ or ND of } y = y^2 - \frac{y^2}{2} + \frac{y^2}{3} + \text{sc} \text{. Hence } y = y + \frac{y^2}{3} + \frac{y^2}{2} - \frac{y^2}{3} = \text{sec}. \text{ Put } y = \text{a}, \frac{y^2}{2} = \text{b}, \frac{y^2}{3} = \text{c} \text{. &c.} \]

The genus Anoma is commonly defined by some authors as a shell inquiline, one valve gibbous towards the beak, the other flat, and perforated near the hinge. The character in the Systema Nature, is the shell inquiline, one valve being flat, and the other gibbous at the base, and one of them usually perforated near the base; the hinge has a linear prominent cicatrix, and a lateral tooth within the margin of the flat valve; and there are two or more rays for the base of the animal. The animal, which had been very imperfectly known, is described by Gmelin, from which it appears to be of a new genus; the body is thin and slender, emargiuated, and calcified or fringed; the hairs affixed to the upper valve; and it has terebration, which are linear and longer than the body. Some conchologists separate the fossil kinds from those which are found in a recent flat. Linnæus, and after him, Gmelin, arrange them together in the following order: craniolaris, pectinata, ephippium, epeps, electrica, squamula, patelliformis, fucinata, aurita, retum, pygopus, pecten, fritalula, truncata, reticularia, piscatella, crista, lacinia, pubescenta, fera, caput perpeta, terebrata, angulata, hylierta, biloba, placenta, sull, spinosa, squamula, muretula, squama, squamula, pandula, undata, capens, destruncata, fangu tongues, vitrea, cranium, doria, pataetes, tridentata, spondylodes, ventricosa, gymnothoe, flexuosa, rugosa, cilindrica, nucleus, avenacea, &c. and others, which are respectively.

ANOMOEANS, ANOMOEIS, in Church History, a sect of Christians who denied any similitude between the essence of the Father and that of the Son. See Trinity.

The word is composed of the privative an-, and omoeis; similar, resembling; q. d. different, dissimilar.

Anomoeans was the name whereby the pure Arians were distinguished in the fourth century, because they not only denied the confusableness of the Word, but also asserted, that he was of a nature different from that of the Father; in contradistinction to the Semi-Arians, who indeed denied the confusableness of the Word, but who owned, at the same time, that he was like the Father. The Semi-Arians condemned the Anomoeans in the council of Seleucia; and the Anomoeans condemned the Semi-Arians in the council of Conantinople and Antioch, erasing the word anomoei, like, out of the forms of Rimini and that of Conantinople.

ANOMORHOMBOIDEA, in Natural History, the name of a genus of spars.

The word is derived from anomoeis, irregular; and rho, like, a rhomboidal figure.

The bodies of this genus are quadrien-and irregular forms of no determinate regular external form, but always breaking into regularly rhomboidal mallees; easily filleted, and composed of plates running both horizontally and perpendicularly through the mallees, but cleaving more readily and evenly in an horizontal than in a perpendicular direction; the plates being ever composed of irregular arrangements or rhomboidal concretions.

Of this genus there are five known species, which have all, in some degree, the double refraction of the island crytal.

ANONA, in Botany. See Achras, Annona, Christophyllatum, Grataea, and Sloanea.

ANONIS, see Glycine, Hedisarum, Ononis, and Sophora.

ANONION, in Antient Geography, a town of the northern part of Italy, belonging to the Euganians, to the west of Venetia.
ANONUS Fons, a fountain of Laconia, according to Pananias, situated near mount Taygeta.

ANONYMA, in Conchology, a species of ostrea. The shell is rather oblong, with narrow, scaly rays; the interstices broad, with perpendicularly lines; and the ears with perpendicular wrinkles. Lift Gmelin. It is variegated with angular breaks and spots.

ANONYMOUS. See Chelone.

ANONYMOUS, formed of the privative a, and nomas, name, something that is nameless, or to which no name is affixed.

The term is chiefly applied to books which do not express their author's name, and to authors whose names are unknown. Decker, advocate of the imperial chamber of Spires, and Placcius of Hamburg, have given treatises of anonymous books. Buc. Cotth. Struvius treat of the learned men who have endeavoured to investigate the authors of anonymous books.

ANONYMOUS, in Anatomy, a name sometimes given to parts newly discovered, or first taken notice of.

ANONYMOUS is also an appellation anciently given to the second cartilage of the throat, by later writers, called criocides, or annuliformis.

ANONYMOUS, in Commerce. Partnerships in trade in France are fyled anonymous, when they are not carried on under any particular name, but wherein each of the partners trades visibly on his own account, and in his own name; after which all the partners give one another an account of their profit or losses in trade. These sorts of partnerships are concealed, and known only to the parties themselves.

ANONYMOUS partnerships in trade, are also in France such wherein perfons of fortune and quality deposit sums of money, in order to share the profits and losses. To this end those who furnished the capital have no trouble in carrying on the trade, nor do their names appear to be any way interred therein.

ANONYMOUS, in Law. The sending anonymous letters, or letters with a fictitious name, demanding money, &c. or threatening, without any demand, to kill any of the king's subjects, or to fire their houses, out-houses, barns, or ricks, is felony by the Black Act, 9 Geo. I. cap. 22. Amended by statute 37 Geo. II. cap. 17. This offence was formerly very high treason by the statute 8 Hen. 5, c. 6.

ANOPEOA, in Ancient Geography, a mountain of Greece, being part of the chain of mountains, called Oeta. A small pass in this mountain formed a communication between Thesaly and the country of the Epicemidian Locrians.

ANOPOLIS, an appellation given to the town of Ardeas in the ile of Crete. Steph. Byz.

ANOPSHEER, in Geography, a town of Hindostan, in the province of Oude, 50 miles east-south-east of Delhi. N. lat. 28° 20'. E. long. 79° 30'.

ANOREXY, Anorexia, in Medicine, loss of appetite, or loathing of food.

The word is compounded of the privitive a, and opteo, appetite, I desire.

Anorexia is seldom an idopathic disease, but a frequent attendant on many.

Curse. — It is present, in some degree, in all scible complaints, and then usually attended by a fever on the upper surface of the tongue, which commonly indicates its intensity; for, as the fever disappears, the appetite returns. It occurs in jaundice; and accompanies a weakness in the organs sublervient to digestion and exflication. Persons addicted to the abuse of spirituous liquors are seldom free from it. The sight of any shocking accident, disaffearing news, depressing passions, or the being present at any surgical opera-

tion, will often abash the appetite of a person, even when longing for his dinner.

A symptom depending, on so many causes, must require considerable diversity in the Treatment. — When it is symptomatic of other diseases, the cure cannot be effected without that of the original complaint. When it arises from the habit of drinking spirits, taking opium, tobacco, or any other poison, the custom must be relinquished, and the digestive organs invigorated by i stomechics. See Dyspepsia.

ANOSMIA, denotes a diminution or abolition of the sense of smell. It is either organic, owing to a disease in the membrane lining the internal parts of the nostrils, and varying according to the nature of the disease; or atomic, without any evident disease of the membrane of the nose. See Smelling.

ANOSSE, Carcaussi, or Androreizaha, in Geography, a province of Madagascar, situated in S. lat. 23° 16'; and extending from the province of Mananaré in 26°. This province is watered by several rivers, that run into the Franchere, Ramevate, or Immour, which rises in the mountain Manghage, and discharges itself into the sea, in S. lat. 25° 18', two small leagues from Port Dauphin. At its mouth is formed a lake, called Amboue, half a league wide, and of sufficient depth for any ship. Crocodiles breed in this river, and in every other in the island. The cape, which is half a league distant from the mouth of the Franchere, is called by the French St. Romain, and by the negroes, Cape Ranevate, or Hehoale. The coast beyond this cape forms a bay, in the middle of which the land runs out in a peninsula, to the north of which lies Port Dauphin, and over against it Port Dauphin; this bay is called by the French Dauphin Bay; and it is convenient for shipping and boats, which may ride here very safely. This province includes several islands and peninsulas along the coast. The country is beautiful, and fertile in pastures for cattle, abounds in fruit-trees, and, if carefully cultivated, would afford every necessity of life. It is surrounded by high mountains, and diversified by numerous hillocks and fruitful plains. The most remarkable towns are Francheville, l'Inland, Cobehmes, Andrapoule, Ambobettanha, Maromambo, Imours, Maroufouants, and Tanangha, besides several villages and hamlets throughout the country. The mountains are covered with wood and fhrubs; but about four leagues distant from Port Dauphin, the adjacent hills are quite defolate of trees. The inhabitants of the province are whites and negroes. The whites form three eftates, or different degrees; and are distinguished by the names of Rohandrians, Anacandrians, and Oudzatsi; the negroes are also subdivided into four classes, viz. Voadziri, Lobahothis, Ontooa, and Onede. These people have neither religion nor temple; they keep up a custom of immolating beasts on particular occasions, in sickens, on planting yams or rice, on the circumcision of children, declarations of war, first entry into new-built houses, and on the funerals of their parents. They offer the first born-beast to the devil and to God, naming the devil first in this manner, "Dianblis Aminan-habare, or lord-devil and God." The country seems to have been originally inhabited by negroes; and the whites took possession of it about 200 years ago; but they were subdued by the French. In 1642, Capt. Rivault obtained leave from Cardinal Richelieu to establish a colony here; and the French, who, after some opposition, settled here, built Fort Dauphin, which is advantageously situated, as it is sheltered from dangerous winds, and its entrance is convenient for all sorts of shipping. The natives, however, after some years of tranquillity and social intercourse, became jealous of the French, and formed a conspiracy to cut off all the French in
one day, which they carried into effect. The Fort Du-
pau, which was erected in 1644, was accidentally de-
bstroyed by fire in 1656, but it was soon after repaired; and its gar-
rision is thus enabled to carry on frequent wars with the na-

ANOTIA, in Botany. See Bixa.

ANOUT, S. in Geography, a bay on the north coast of the island of Jamaica. N. lat. 18° 19'. W. long. 76° 33'.

ANOUPEC, the name of a range of mountains in the Birmam empire, between Ava and Arattan.

ANOUT. See Anholt.

ANPITS, in the Military Art, in some Middle Age Writ-
ers, denotes a break-work, answering to what is otherwise called karhana.

ANREDERA, in Botany, a genus of the pennadria digynia class and order: the characters of which are, that the calyx is bipartite, with the laciniae carinated at the back; and it has one seed covered by a membranaceous, compressed, and two winged calyx. There is one species, viz. andrederia sertata.

ANSA, or Atsa, in Geography, a river which passes by Aquile, in the country of Troili; and runs into the Adriatic, between Grado and Marano.

ANSERES, in Geography, those apparently prominent parts of the planet Saturn's ring, discovered in its opening, and appearing like handles to the body of that planet. The Latin word literally signifies handles, or ears, of diverse utensils.

ANSANI, Giovanni, in Biography. See Giovanni.

ANSARS, or Annariens, in Geography, a people of Syria, employed in cultivation; and called in that country by the plural name Anfari; in Delisle's maps, Enfayrians; and in those of D'Anville, Naffars. The territory which these people occupy, is that chain of mountains which extends from Antakia to the rivulet called Hahrel-kabir, or the great river. The history of their origin, though little known, is instructive. The following account is given in the words of a writer (Allemanni, Biblioth. Orient.), who has drawn his materials from the bel authorities. "In the year of the Greeks, 1222 (A. D. 67) there lived, at the village of Nafar, in the environs of Konfa, an old man, who, from his failings, his continual prayers, and his poverty, passed for a saint: several of the common people declaring themselves his partisans, he selected from among them twelve disciples to propagate his doctrine. But the magistrat of the place, alarmed at his proceedings, fetzed the old man, and confined him in prison. In this reverse of fortune, his situation excited the pity of a girl who was slave to the gaoler, and the determined to give him his liberty. An opportunity soon offered to effect her design. One day, when the gaoler was gone to bed intoxicated, and in a profound sleep, the gently took the keys from under his pillow, and, after opening the door to the old man, returned them to their place, and perceived by her matter: the next day, when the gaoler went to visit his prisoner, he was extremely astonished at finding he had made his escape; and the more so, since he could perceive no marks of violence. He therefore judicially concluded he had been delivered by an angel, and eagerly spread the report, to avoid the reprehension he merited; the old man, on the other hand, ascribed the same thing to his disciples, and preached his doctrines with more earnestness than ever. He had written a book, in which, among other things, he says: 'I, such a one, of the village of Nafar, have seen Christ, who is the word of God, who is Ahmam, son of Mohammad, son of Hanafa, of the race of Ali; who also is Gabriel; and he said to me: Thou art he who readeth with understanding; thou art the man who speaketh truth; thou art the camel which receiveth the faithfulfrom wrath; thou art the beak which carrieth the burden; thou art the Holy Spirit, and John the son of Zachary, go, and preach to men that they make four genuflexions in praying; two before the rising of the sun, and two before his setting, turning their faces towards Jerusalem; and let them fast three times, God Almighty, God most high, God most great; let them observe only the second and third fastival; let them not wash the preface, nor drink beer, but as much wine as they think proper; and, lastly, let them abanion from the flesh of carnivorous animals.' This old man, passing into Syria, propagated his opinions among the lower orders of the country people, numbers of whom believed in him. And, after a few years, he went away, and nobody ever knew what became of him."

Such was the origin of the Anfarians, who are, for the most part, inhabitants of the mountains before mentioned. They are divided into several tribes, or sects; such as the Shamsia, or adherers of the sun; the Keliba, or worshipers of the dog; and the Kadmuia, who pay a particular homage to that part in woman which corresponds to the priapus; and who hold nocturnal assemblies, in which, it is said, after certain discourses, they extinguish the light, and indulge promiscuous lust. Many of the Anfarians believe in the metempsychosis; others reject the immortality of the soul; and, in general, such are the anarchy and ignorance that prevail among them, they adopt any opinions which they think proper, following the fect they like best, and frequently attaching themselves to none.

Their country is divided into three principal districts, farmed by the chiefs called Mokaddamin. Their tribute is paid to the pacha of Tripoli, from whom they annually receive their title. Their mountains are, in general, not so steep as Lebanon, and, consequently, are better adapted to cultivation: but they are also more exposed to the Turks; and hence it happens, that, with greater plenty of corn, tobacco, wines, and olives, they are more thinly inhabited than those of their neighbours the Maronites and the Druzes. Volney's Travels in Egypt and Syria, vol. ii. §. 1. p. 1—8.

ANSARIUM, in the Civil Law, a duty imposed on all provisions carried in vessels with anja. This was otherwise called anjurium, and the collectors of it aubar.

ANSATUM Tulum, according to fome, denotes a dart or javelin, with an antamus fattened to it.

Others rather take the anja of a javelin to be those two eminences about the middle of the cubit, or point, which hinder the weapon from piercing through the whole body. The Tartars are obliged to put their names to their arrows, that the hand which shoots them may be known. When Philip of Macedon was wounded at the siege of a certain town, these words were found on the javelin, "Anja has given this mortal wound to Philip."

ANSATUS, in Conchology, a species of murex. It is brown, transversely striated; spire sharp-pointed; whorls convex, dilated, and knotty at the base; base long. Gmelin. The length of this shell is about five inches and an half, and the flax are large and small alternately.

ANSAUILLERS, in Geography, a town of France, in the department of the Oise, and chief place of a canton, in the district of Breteuil, five miles south-south-east of Breteuil.

ANSCARIUS, in Biography, bishop of Hamburgh and Bremens, was born in 821, in France, at Corin, in the diocese of Amiens. He was recommended by the emperor Louis as apostolic missionary to Harold king of Denmark, who had been lately converted to the Christian faith; and by his preaching he made many profelytes among the Danes. Under the authority of Olave, king of Sweden, he undertook the instruction of his subjects in the Christian religion,
religion, but with less success. By the council held at Aix-la-Chapelle, in 832, an episcopal see was instituted at Hamburgh, and Anfclin was its first bishop. When his eurch was burst by the Normans, in 845, the see of Bremen was added to that of Hamburgh; and Anfclin removed to Bremen, where he refided till his death, in 865. He wrote the life of Willibald, the first bifhop of Bremen; and his own life written by Mabillon, is reprinted by Fabriecius, in his “Memoires pour l'histoire de Hamburgh.”

ANSCOTTE, in our Anci. Lf. Book, the same with Anstele. See Scot.

ANSE, in Geography, a town of France in the department of the Rhone and Loire, and chief place of a canton in the district of Villefranche; four leagues north of Lyons.

ANSEL WILGHT, See Auncel weight.

ANSELM, in Biography, archbishop of Canterbury, was born at Abbeville in Picardy, A.D. 1034, of noble and pious parents, who were at great pains to give him a good education. Having lost his mother Ermengarda when he was about seventeen years of age, he abandoned his studies, and indulged his youthful passions to such a degree, that his father refused to see him, or admit him into his house, on which he left his native country, and travelled into France. After some time, attracted by the fame of Lanfranc, he settled at the abbey of Bec, and prosecuted his studies with such ardour under that great master, that he soon excelled all his fellow students in learning. In the year 1052, he became a monk of the Benedictine order, and in three years after he succeeded Lanfranc, both as prior and teacher of the sciences; in both which stations he acquitted himself so much to the satisfaction of the society, that he was unanimously elected abbot on the first vacancy, A. D. 1078. The abbey of Bec had several estats in England, which obliged Anfcln sometimes to visit this kingdom; and in these visits he gained the friendship of several of the greatest men. He happened to be here in the year 1093, when William II., in a fit of sickness, was prevailed upon to fill the see of Canterbury, which had been kept four years vacant, and nominated him to that high office. After a long and obstinate opposition to his own advancement, in which his sincerity has been suspected, he was forced into the chamber of the sick monarch, who, in a very pathetical manner, asked, "Why endeavoured to ruin him in the next world, which would infallibly follow, in case he died before the archiepiscopie was filled?" The abbot still persisted in his refusal, kneeling, weeping, and entreaty the prince to change his purpose. The pallor of his face was at length forced into his hand, and he suffered himself to be invested with his office; not, however, before he had obtained a promise of the restitution of all the lands, which were in the see in the time of Lanfranc. The temporaries of the archiepiscopie being secured, Anfcln submitted to do homage to the king, and was consecrated on the fourth of December 1093. Soon after his consecration, the king intending to wrest the duchy of Normandy from his brother Robert, and endeavoring to raise what money he could for the purpose, Anfcln offered him a voluntary gift of five hundred pounds, which the king thought too small, and refused to accept. "I entreat your highness," said Anfcln, "to accept the present; it will be more honourable in you to receive a less sum with my consent than to extort a greater by force. If your highness allow me the freedom and privilege of my fixation, my person and fortune shall be at your service; but if I am treated like a slave, I shall be obliged to stand aloof, and keep my fortune to myself." The offer was however, for the present, rejected; and when it was afterwards hinted to Anfcln, that a repetition of it might conccllate the royal favour, he answered, "God forbid that I should suppose my foreigner's favour may be purchased with a small sum of money, like a horse at a fair! Persuade the king not to set a price on his favour, but to treat me, on honourable terms, as his spiritual father, and I am ready to pay him the duty of a faithful. As for the five hundred pounds, which he was pleased to refuse, they were given to the poor." The king, upon being informed of what had passed, was much displeased, and declared he would never acknowledge Anfcln for his ghostly father; he wanted neither his prayers nor his benedictions, and he might go whither he pleased. At another time, when William required from the archiepiscop the quota of men for an expedition against Wales, he sent them out so wretchedly equipped, that it threatened him with a prosecution. Anfcln, on his part, considered the demand as oppressive, treated the king's complaint with silent contempt, and demanded the restitution of all the revenues of his see, and made his appeal to Rome. In opposition to the king's express prohibition, but not without pairing to the court of Rome to attempt his justification, he left England, and the king instantly confiscated the temporalities of the archiepiscopie.

At Rome, Anfcln was received with great respect, as a defender of the rights of the holy see, and a meritorious sufferer in the cause of religion. He accompanied the Pope to his country seat near Capua, and received from him numerous proofs of friendship: but upon their return to Rome the pope's friendship for Anfcln was put to a severe trial. In consequence of a letter sent from Urban II. to William, soon after Anfcln's arrival at Rome, demanding his reinstatement in all the emoluments and privileges of his sees, an ambassador arrived from England to vindicate the conduct of the king. The ambassador was at first received with haughtiness, and was commanded by the pope to return and inform his master, that unless he would hazard the highest censure of the church, he must infantly reinstate Anfcln in the archiepiscopical rights. Notwithstanding this, after some struggle between duty and interest, the pope accepted a large present, and abandoned the cause of his friend. Finding himself deserted by the court of Rome, Anfcln left the city in distress, and went to Lyons, where he remained till the death of William Rufus.

Henry I. who, on his accession to the throne, employed every expedient to support the authority which he had usurped; and being well acquainted with the interest which Anfcln's piety and zeal had obtained in the affections of the people, immediately after his coronation recalled their favour from exile, who landed at Dover, Sept. 23, 1100. A few days after, he was received at Salisbury by the king with every possible mark of respect and affection. But this cordiality was not of long continuance. As soon as Anfcln was commanded to do homage to the king for the temporalities of his see, he returned a flat refusal, and produced the canon of the late council of Rome in vindication of his conduct; declaring, that if the king inflicted upon his pretenions to the homage of the clergy, he could keep no communion with him, but must infantly leave the kingdom. The king, unwilling to resign the right of compelling ecclesiastical vicerecies, and of receiving the homage of his prelates, but at the same time, dreading the departure of the prince, propounded, or rather solicited a truce, till both the parties could find ambassadors to the pope, to know his final determination: to this Anfcln, at the earnest entreaty of the nobility, at last agreed, on what precedent.

During this interval, Anfcln performed many services for the king. In a synod which was summoned at Lambeth, he obtained a decision in favour of the king's intended marriage with Matilda, although the had already worn the veil, without taking the vows. When the kingdom was invaded by
by Robert duke of Normandy, in July 1101, Ansfelm contributed more than any man, by his example, his exhortations, and his authority, to keep the nobility steady in their attachment to King Henry, and thereby preserved him on the throne. In return, the king professed great reverence for the wisdom and fidelity of Ansfelm, and promised to pay a third regard to the dignities and privileges of the church. But when the danger was over, and the messenger from pope Paschal II. returned with a peremptory negative upon Paschal's infatuation, the archbishop and the king and the archbishop was received. Henry resolved not to relinquish the important prerogative of granting church preferences within his own dominions, yet desires to avoid a rupture with the pope and Ansfelm, sent three bishops to Rome, while the archbishop, on his part, dispatched two nuncios to submit the affair to the reconsideration of the pontiff. The pope's letter confirmed his former resolution, declaring, that the church, and all its revenues, belong to the successors of St. Peter; and that emperors and kings had no right to give the investiture of benefices to the clergy, or to exact homage from them. Some of the arguments advanced in defence of this position were either illogical or rude: 'How abominable is it,' said he, 'for a son to desert his father, and a man to create his God? and are not priests your fathers, and your gods?' But this formal declaration was contradicted by the oral testimony of the king's bishops; who asserted, that Paschal had privately expressed to them his acquiescence in their master's claim, but had not given it under his hand, lest other princes should insist upon the same privilege. Ansfelm and his nuncios regarded this story as a designed provocation, prompted by the king; but the test time the princes appeared at court, he required him in a peremptory tone to do him homage according to ancient custom, or leave the kingdom; adding, 'I will suffer no subject to live in my dominions who refuses to do me homage.' The archbishop boldly replied, 'I am prohibited by the canons of the council of Rome to do what you require. I will not leave the kingdom, but stay in my province, and perform my duty; and let me see who dares to do me any injury.' Immediately he left the court, and returned to Canterbury. Soon after, the king granted him permission to make a journey to Rome, in order to learn the pope's final pleasure. He was attended to the sea-coal by crowds of people of all ranks, whom his anctere pietas and zeal for the church had attached to his interest. From Rome the archbishop retired to Lyons, and afterwards to his monastery at Bec in Normandy. The king, still desirous of an accommodation, sent a message to invite Ansfelm into England; and upon receiving information that he was ill at the abbey of Bec, went in person into Normandy to settle every remaining point of difference between them. Ansfelm recovered from his indisposition, and embarked for England, where he was received with singular expressions of a joyful welcome. The queen herself even travelled before him on the road, and gave orders for his accommodation. The popularity of this prelate may be imputed principally to the severity of his manners, and to the zeal with which he opposed abusus, and encouraged superstitious authoritres among the clergy and laity. He rigorously enforced clerical celibacy; and was the first who prescribed this absurd, unnatural, and mischievous practice in England. By one canon of a national synod, held by him during his duces in the monachal, at Weilmunster, in 1103, it was determined that no priest should marry; and those who were already married, were commanded to put away their wives. By another canon, it was decreed that the sons of priests should not be heirs to their father's churches. By a third, marriage is prohibited to those who are within the seventh degree of kinsmen; and the twenty-sixth canon forbade the worship of fonts, which was probably a relic of Druidical superstitious. Ansfelm was ever a violent opposer of all innovations, even in articles of dress and ornament; and preached zealously against the long and curled hair then coming into fashion; and his authority and eloquence had such influence, that the young men universally abandoned that ornament, and appeared in short hair, which was recommended to them by the sermons of the prelate. One of his adherents writing to him about this time, concluded his letter by saying, that religion was raised by his absence; that seductors, abusing long hair, which he himself had regarded as equal crimes, were become very common, and nobody had the courage to reprove them.

In a council held at Whithampton, A. D. 1106, at which the king and principal clergy, with Ansfelm at their head, were present, it was resolved to enforce the canons made six years before, relative to the celibacy of the clergy. Ten others were also added, by which all priests were commanded to put away their wives; instantly not to suffer them to do any act of worship on any of the lands belonging to the church; never to see them except in cases of great necessity, and in the presence of two or three suffragans. Those who put away their wives were ordered to abdicate from marts for forty days, and to perform certain penances; but he who refused to put away their wives were to be excommunicated, and their goods, together with the persons and goods of their wives, were to be forfeited to the bishop of the diocese. These ecclesiastical and wicked decrees afforded sufficient proof, that it was then found no easy task to dispute the natural and virtuous affection that subsisted between the clergy of England and their wives.

One of the last disputes in which Ansfelm was engaged, was with Thomas ejet of York, who, hoping for the death of the prince, delayed to come to Canterbury to receive consecration; but he was at length obliged to submit, make the usual professions of obedience, and render to his superior the accustomed homage. This, in fact, is the only material occurrence mentioned during the three last years of Ansfelm's life. This celebrated prelate died at Canterbury on the 25th of April 1109, in the sixty-third year of his age, and the sixteenth of his priesthood.

The superstitious reverence which was paid to the memory of Ansfelm, and the characteristic credulity of the age, are shown in the account of his miracles recorded by John of Salisbury. He relates, that while he was living, a Flemish nobleman was cured of a leprosy by drinking the water in which Ansfelm had washed his hands in celebrating masses; that he extinguished fires, calmed tempests, and healed diseases, by making the sign of the cross; that two soldiers were cured of an acut by tainting crumbs fallen from the bread which he had been eating; that by prayer to God, he produced a spring of excellent water at the top of a hill for the relief of certain villages; and that a ship in which he sailed, having a large hole in one of her planks, nevertheless took in no water as long as the holy man was on board. The same author adds, that miracles were wrought at Ansfelm's tomb after his death; that one born deaf, dumb, and blind, obtained his hearing, speech, and sight, by paying his devotions at his tomb; that a sailor was cured of the dropsy by winding the saint's girdle about his body; and that the same girdle was successfully applied to the affections of women in child-birth.

Without examining the powers of Ansfelm as a saint, his merit as a man may be fairly estimated, if, with great allowance for the narrow prejudices of a monastic education, and for principles and habits generated by a debasing system of superstition, we give him credit for honest zeal, and manly resolution.
resolution, in support of what he conceived to be the essence of religion. Considering the period in which he lived, An- 
seil was a learned man. He contributed to the introduction of the scholastic method of writing, in which the subtleties of 
logic were applied to theology. Among his metaphysical 
works is a treatise on the existence of God, in the manner 
afterwards refined by Des Cartes.

The largest edition of his works, which are very num-
erous, is that published by Father Gerberon, at Paris, in 
1675. It is divided into three parts. The first contains 
dogmatical tracts, entitled, "Monologia." The second 
contains practical and devotional pieces. The third is com-
and Henry's Hist. of Great Britain.

Anseil's art. See Art.

Anselm of Paris, an Augustinian monk, was born in 
1625, and devoted almost his whole life to genealogical and 
biographical researches. His "Palace of Honour, or His-
torical Genealogies of the Illustrious House of France, and 
of several noble families of Europe," was published in 
French at Paris, in 1647, in two vols. 4to. His "Ge-
netical and Chronological History of the House of France, 
and of the Great Officers of the Crown," was first pub-
lished at Paris, in 4to, in 1695; but the author, dying this year, 
did not complete his design. Fourni enlarged this work, 
and republished it in two volumes folio, in 1714, and it has 
only been continued by the Augustinian fathers, Ange 
and Simplicien; and in 1726, &c., it was published in nine 
volumes folio. Biographers have been much indebted to 

Anselmus, De Fauca, flourished in the thirteenth cen-
tury. Afinruppos he was of the faculty of medicine at 
Montpellier: that he was in repute, in his time, is proved by 
the notice taken of him by Lanfranc, and afterwards by 
Guic de Chauliac, who recommended his practice in certain 
cases; but there are no works now remaining bearing his 
name.

Anser, in Astronomia, a small star, of the fifth or sixth 
magnitude, in the Milky Way, between the Swan and Eagle: 
first brought into order by Hevelius.

Anser Americanus. See Toucan.

Anser, in Natural History, a species of vireo in the 
virgins lubirca. It is elliptical, with a long neck and 
tubercle on the back. Gmelin. This kind is found in 
water where duck-weeds grow: it is between the vireo 
protea and vireo fulvescens, and is chiefly distinguished by 
the protuberance on the back. The body is elliptical, round, 
with no anterior inequality, and full of molecules; the 
hind part is sharp and bright, the forepart produced into a 
beading neck, which is longer than the body; the apex 
even and whole, blue canals passing between the marginal 
edges, and occupying the whole length of the neck: in one of 
these canals a vehement deficernt of water at the 
beginning of the trunk may be perceived. The motion of 
the body is slow, that of the neck is more lively and 
flexuous, and sometimes spiral. See Adams, Microf.

Anser, in Ornithology, a species of anas, or duck, called 
in England the grey-lag, or wild goose, and generally ad-
mittted as the origin of the domestic goose. The character 
of this species is, bill semi-elliptical; body above cinere-
us, beneath pales; neck streaked. Linnæus, Gmelin, &c. 
The length of the bird is usually about two feet nine 
inches, breadth five feet, weight ten pounds. The bill is 
large and elevated, yellow with black colour, with the nail 
white. The head and neck are cinereus, mixed with dirty 
yellow; neck streaked downward; back and primaries dusky; 
the left tipped with black; shafts white; secondaries black, 
edge with white; lesser covers dusky, edged with white;

breast and belly white, clouded with light colour; rump 
and vent white; middle feathers of the tail dusky, tipped 
and edged with white; the outmost almost entirely white; legs 
Syn. &c.

"This species," says Dr. Latham, "inhabits the fens of 
England; and it is believed, does not migrate, as in many 
countries on the continent, as they are not only met with in 
the summer, but also known to breed in Lincolnshire, Cam-
bridgehire, and other places: they have seven or eight 
young, which are often taken, and early become tame. They 
however, unite into flocks during the winter season, as 
numbers are met with together. On the continent they are 
migratory, changing place in large flocks, often five hundred 
or more: in this case the flock is triangular in shape, with one 
point foremost; and as the goose which is first is tired soonest, 
it has been seen to drop behind, and another to take its place. 
In very small flocks, however, they are sometimes seen to 
follow one another in a direct line. Gecfe feed to be general 
inhabitants of the globe: they are met with in Iceland; and 
on the continent, from Lapland to the Cape of Good Hope; 
they are frequent in Africa, Peria, and China, as well as 
distinguished to Japan; and on the American continent from 
Hudson's bay to South Carolina. Our voyagers meet with them 
in the Straits of Magellan, Port Emeont in Falkland Isles, 
and Terra del Fuego; also in New Holland, though not at 
New Zealand, as we find cants. Cook making the inhabitants 
of the antipodes a present of a pair in order to breed." Gen. Syn.

The same author remarks, that the grey-lag goose, in 
a state of domestication, varies in colour from the wild ones, 
though much less so than either the mallard or coot, being 
ever found mere or less varying to grey; though in all cases 
the whitenss of the vent and upper tail coverts is visible, and 
very often those parts are quite white, especially in the 
male. See Goose, domestic.

Anseres, in Ornithology, the third order in the Lin-
nean arrangement of birds. The character, according to 
that author, is, the bill smooth, covered with skin, and 
broadly towards the tip: feet formed for swimming, toes 
palmed, and connected by a membrane; shanks compressed 
and short. The body is fat, and flesh rather rancid. Thse 
live chiefly on the water, and feed on plants, fish, frogs, 
worms, &c. The shell is generally formed on the ground; 
the mother takes little care of the young; and they are 
frequently polygamous.

The birds of this order are divided into two sections, one 
having the beak denticulated, or toothed, and the other 
being deficient of these teeth: the genera of the first section 
are, anas, mergans, phaeton, and plotus; and those of the second 
section, ryhncops, diomedea, apteranpelia, alca, praelaria, pe-
lecanus, larus, itragus, and eolymbus.

Anserifera, in Conexology, a species of lepas. 
The shell is compressed, and has five valves, which are 
fringed, and seared on a pedicle. Gmelin. This kind in-
habits the American and Atlantic sea.

Anserina, in Botany. See Potentilla.

Anseris, in Entomology, a species of pedunculus found 
on both the wild and tame goose; it is fihiform, pale, with 
black dots on the margin. Linnæus, Fabricius, Redi, &c.

Anseris, in Natural History, is also a species of rasciola 
in the Verone infusia. The body is obovate; beneath, 
two rows of opposite papillæ, with approximate pores. 
Prochick, Gmelin, &c. Found in the rump of the common 
goose.

Anseris is also the specific name of a creature in the tania 
genus, that infests the intestines of the domestic goose. It 
is minute and very narrow; the anterior part capillary. Gorce 
and Gmelin.
Ainsi, or Anse, a sea-port town of Norway, in the prefecture of Agderhus, upon the bay of Anifo. See Christianity.

Aenio, or Oenio, a sea-port town of Norway, in the prefecture of Agderhus, upon the bay of Anifo. See Christianity.

Anes, See Anes.

Anesianacies, in Geography, a people of the island of Madagascar, towards the isle of St. Mary.

An Epidemic, or AnSyvaria, in Ancient Geography, the name of a people of Germany, mentioned by Tacitus. According to this historian, they were driven, in the time of Nero, from their own territory by the Chauci, and then took possession of certain lands, previously occupied by the Frisians, which had belonged to the Romans, and used as pittance for their horses and cattle. In this acquisition, they were assisted by Boioicinus, a prince of distinguished reputation, and of whom proved fidelity to the Romans. When the Romans demurred in allowing them to possess these lands, Boioicinus pleaded the merit of 50 years service; and he remonstrated, that the territory was large, and applied to no useful purpose; that an unhappy people, driven from their own habitations, might be accommodated without encroaching on wide tracks, in which the Roman horses and cattle might range; that humanity forbade their suffering men to perish, whilst beaks were amply provided for; that it was incompatible with religion to devote to deferts and solitude parts of the earth which were designed by the gods for the use of men; and that such parts as had no possessor were free and common to all. Then lifting up his eyes to the sun and other celestial luminaries, he asked them, how they could bear to behold a defoliate fell, if they would not, in justice, command the fen to swallow up uppers, who thus engrossed the earth? To this spirited remonstrance, Anius, the Roman commander, indignantly replied, that the weakest must submit to the most powerful; and that as the gods had entrusted the Romans with sovereign judgment, they could not permit any other judges to interfere. At the same time, lands were privately offered to Boioicinus, in recompence of his long attachment to the Romans. This offer the brave general considered as the price of his honour, and as a bribe for betraying his people, and he rejected it with disdain and indignation, alleging, "We may want a place to live in, but a place to die in we cannot want." Upon this the Anibarri invited the neighboring nations into a confederacy against the Romans, but they were averted by the Roman generals and their forces; so that at length the unhappy people, applying in vain for settlements in neighboring territories, were under a necessity of making long and various peregrinations, which terminated in their utter defraction. Tacit. Annal. liv. c. 35. 37. These people have been known under the other denominations of Amfereus, Amfereus, and Amfistari. Some have thought that their name is derived from Ames, the Ems, and Homer, a German word, which signifies to inhabit.

Anisko, or Aniko, called also Makoko, in Geography, a kingdom of Africa, is bounded on the west by the river Umbre, which runs into the Zaire, the kingdom of Wangua and the Ambos, who border on Longao; on the north by some deferts of Nubia; and on the south by the provinces of Congo, called Songo and Sousa. This country has several mines of copper; it produces a great quantity of tanamera wood, both red and grey; and it abounds with thinecrepes, lions, and other wild beasts. The inhabitants have neither fixed lands nor inheritance; they neither sow nor reap, but live like the wandering Arabs, and fulfill by plunder and slaughter. They are said to be the remains of the Giazen, who came originally from Sierra Leone, but being weakened by their marches and battles, they were unable to return, and reduced to the necessity of refiding, principally, in the kingdom of Anisko, and also on the south-east of Angola. In their undertakings and exploits, they are valiant and intrepid, and altogether regardless of life. Their language is barbarous, and difficult to be acquired, even by the inhabitants of Congo. Their food is fand to be human flesh, and human bodies are hung up for sale in their shops. Considering that they have an absolute right to dispose of their slaves at pleasure, their prisoners of war are fattened, killed, and eaten, or sold to butchers. It is also said, that disaffected slaves offer themselves for food to their masters; and that persons of the nearest relation feed upon each other without the least horror. They have no graves for the dead, who are devoured as soon as they have expired. Persons of the principal distinction wear red and black caps of Portuguese velvet, and those of inferior condition, both of sexes, go barefooted, and are naked from the waist upwards. In order to preserve their health, they assist their bodies with a composition of pounded white sandal-wood and palm oil. The king of Aniko, or the great Macoco, is esteemed the most powerful monarch of Africa, and his dominion extends over 13 kingdoms. The zimba, or shell filled for at Longo and Angola, is the current coin of the country, and exchanged by the natives for slaves from Nubia, and also for salt, silk, glass, linen, and other merchandise. The arms of these people are battle-axes, and small but very strong bows, adorned and strengthened with serpents skins, and furnished with strings made of supple and slender flots of trees, like reeds, which never break, and short arrows of hard and light wood. In the use of their bows and arrows, they are so dextrous, that they kill birds flying, and discharge as many as 28 arrows from the bow before the first falls to the ground. Besides their bows and battle-axes, they have also daggers in serpent-skin sheaths, which they carry in ivory belts. With respect to religion, they are idolaters; worshipping the sun as their chief deity, whom they represent under the form of a man, and the moon under that of a woman; and an infinite number of inferior deities, each man having a peculiar idol to whom he offers sacrifices, and whom he constantly invokes in dangerous enterprises. They practise circumcision, but from what motives, whether religious or otherwise, it is not known. These barbarous people are much extolled for their singular fidelity and loyalty, so that they will sacrifice their lives in defence of their princes, or of their friends and allies. Mod. Un. Hist. vol. xxi. p. 264. &c.

Ansel, or Osilo, a sea-port town of Norway, in the prefecture of Aggerhus, upon the bay of Anifo. See Christianity.

Anson, George, Lord, in Biography, an eminent English naval commander, was the third son of William Anson, Esq. of Shuckburgh in St. Fidhshire. He was born in 1697. The navy being Mr. Anson's choice, he went early to sea; and in the year 1716, having sailed regularly though the inferior stations, he was made second lieutenant of his majesty's ship the Hampshire; and in 1724, he was raised to the rank of post-captain, and to the command of the Scarborough man of war. Between this time and 1733, he went, with this ship under his command, three times to South Carolina, where he acquired considerable property, and erected a town bearing his name, the country around which has been ever since called Anson County. Between 1728 and 1739, he made a fourth voyage to the coast of Guinea and to America, in the course of which, by his prudence, he engaged the French to desist from interrupting the English Guinea trade, without coming to actions of hostility.

On the breaking out of the Spanish war in 1739, Mr. Anson was pitchted upon as a proper person to command a fleet destined to attack the Spanish settlements in the Pacific Ocean. He set sail in September 1740, with a squadron of five men of war, a troop, and two victualing ships. The whole business of fitting out this expedition had been managed
naged with extreme negligence and incapacity, which rendered the exertion of all the commander's talents necessary. After a long and tedious voyage, he arrived at Madeira, thence he proceeded to St. Catherin's on the coast of Brazil, and afterwards to St. Julian in Patagonia. In doubling Cape Horn, he experienced prodigious difficulties from storms and tempestuous weather: some of his first were separated from him, of which only a small part ever rejoined him. At length he arrived at the isle of Juan Fernandez, where he refitted, allided with his own hands in landing the sick sailors, and for the benefit of future navigators, fowled the seeds of a variety of garden vegetables and fruits.

Thence he proceeded to the coast of Peru, and took the rich town of Pata; which, on the refusal of the Spaniards to ransom it, he was obliged, according to the practice of war, to reduce to ashes. When the English were about to embark, one of their company was missing, who, however, soon arrived, and acknowledged, that by taking too copious a dose of brandy, he had fallen into a profound sleep, from which he was awakened by the searchlight being fired by the town on fire. Upon opening his eyes, he was amazed to behold on the one hand all the houses in a blaze, and on the other, the Spaniards and Indians near him. The great fear and consternation of the terror instantly brought him back to a state of sobriety, and gave him presence of mind to push through the thickets of the smoke, and thus escape the hands of the enemy. This was the only instance of neglect of duty through the effects of liquor, which might have been obtained in almost every warehouse in the town. On this coast, Commodore Anfon took some valuable prizes, on board of which were several passengers of distinction of both sexes; his treatment of whom was so honourable, and consistent with the most decent decent decorum, that it left the most favourable impressions of himself and his country. He afterwards failed to the coast of Mexico; thence with a view of intercepting the annual Acapulas ship, he took his departure across the Pacific Ocean, with his own vessel the Centurion, and the Gloucester. In this passage the Gloucester became leaky, and was abandoned; and the united crews, reduced by sickness, with difficulty reached Tinon, one of the Ladrones. Here while the commodore and the greater part of his crew were on shore, the Centurion was by a strong gale driven out to sea; and so little prospect was there of her being able to reach the island again, that much labour was spent in fitting up a small vessel found on the island, Anfon himself taking the axe like a common sailor. The only occasion in which marks of emotion broke through the uniform equanimity of his demeanour, was when he received news of the Centurion's coming again in sight. From Tinon he went to Macao; and in returning from Macao, he took a rich Manilla galleon; but at the moment of victory he had a call for the exertion of all his courage and presence of mind, in consequence of a fire which broke out near the Centurion's powder-room, but which his orders, given with all the calmness of one conversant with danger in every shape, soon got under. He failed back to Canton with his prize; and there existed equal dexterity and firmness in transacting affairs with the Chinese, and maintaining the rights of his own country. Returning from thence by the Cape of Good Hope, he arrived at Spithead on the 15th of June 1744, having completed the circumnavigation of the globe, and brought back great riches taken from the enemy, though unforeseen disasters had defeated some of the principal purposes of the enterprise. Thus was the expedition finished, after having by its event strongly evinced this important truth, that though prudence, intrepidity, and perseverance united, are not exempted from the blows of adverse fortune, yet in a long series of transactions, they usually rise superior to its power, and in the end rarely fail of proving successful.

In a few days after his return, Mr. Anfon was made rear-admiral of the blue; and in a short time after a commissioner of the admiralty, and rear-admiral of the white; and in the year 1746, vice-admiral. During the winter of 1746 and 7, he was appointed to the command of the channel fleet; and in the following May he captured, off Cape Finisterre, six men of war bound from France to the West and East Indies, laden with warlike stores and merchandise, and four East-Indiamen.

By this successful enterprise, he defeated the pernicious designs of two hostile expeditions, made a considerable addition to the force and wealth of our own kingdom, and thus converted into a public benefit, the intended means of a public calamity. M. St. George, one of the French captains, in allusion to the names of two ships (L'Invincible and La Gloire), which had been taken, laid, when he presented his sword to the conqueror: "Monseur, vous avez vaincu L'Invincible, et La Gloire vous fait!" For this and other important services, he was with great propriety, in the June following, raised to the English peerage by the title of Lord Anfon, baron of Sobraon in the county of Southampton. And on the occasion, his lordship made choice of a motto very happily adapted to the dangers he had gone through, and the successes he had obtained, Nil desperandum. On the 24th of April 1748, he married the eldeth daughter of Lord Hardwicke, at that time lord high chancellor of Great Britain; this lady died without issue on the 21st of June 1760.

Lord Anfon had frequently the honour of conveying the late king from England to Holland. The first time was in the year 1748; and ever after he constantly attended his majesty on his going abroad, and on his return to this kingdom. In July 1749, his Lordship was made vice-admiral of Great Britain; in 1751, he was preferred to be first commissioner of the Admiralty in the room of Lord Sandwich; and in the years 1752 and 1755, he was one of the lords justices of the kingdom during his majesty's absence. Under him, on the prospect of a war with France, the squadrons were fitted out with great promptitude; and that more successes did not attend them was owing to accidents. He was exposed to some cenure in consequence of the loss of Minorca at the beginning of the war 1755; and in the following year he resigned his post. On a parliamentary inquiry, however, he, and the persons with whom he had acted, were acquitted of all blame respecting Minorca. In the year 1757, he was again placed at the head of the admiralty board, where he continued during the remainder of his life, which included almost all the glorious periods of that war.

The last time he commanded a fleet was in 1758, when he covered the expedition against the coast of France, and kept the enemy's fleet in port. In 1761, he was raised to the principal naval dignity, that of admiral and commander in chief of the fleet, for the purpose of bringing over the present queen of England, whom, after a rough and tedious passage, he landed on the 7th of September. In February 1762, he accompanied the queen's brother to Portsmouth to shew him the arsenal, and the fleet that was then on the point of failing, under Sir George Pocock, for the Havannah. Lord Anfon, in attending the prince, caught a violent cold, under which he languished for three months. At length it settled on his lungs, and was the immediate occasion of his death. Full of honours and reputation, he died at Moor Park, Hertfordshire, on the 6th of June 1762, leaving his whole property to his brother, Thomas Anfon, Esq., of Staffordshire.

Lord Anfon was one of his majesty's most honourable...
privy council, an elder brother of the Trinity House, and a governor of the Charter House. He was remarkably affi-
cient at the Admiralty Board, and very ready in making
naval dispositions of every kind, and in appropriating the
proper strength and proper part of ships to the different services.
Among the various and distinguished merits of this eminent
person, was that of having bred up several excellent officers,
who were afterwards renowned for liberal services achieved
for their country. He may, in general, be said to have been a true
friend and liberal patron to men of real merit and capacity in
this profession. Till later voyages had multiplied the circum-
stances of the globe, to have been round the world with
counselor, Anfr.,' was deemed a great and honourable
Walter's Account of Anson's Voyage.
Ansow, in Geography, an interior county of North Caro-
olina in Fayette district, having Meckinsburgh county to the
north, and Bladen and Craven inland counties on the ouii.
It contains 5,150 inhabitants, including 828 slaves.
Ansow's Isle, the Badio of Bougainville, an island of
the Pacific Ocean, being one of the groups called Solomons' Isls.
S. lat. 5° 15'; E. long. 13° 30'.
ANSCHAP, or Osnabroch, a marquisate or prin-
cipality of Germany, in the circle of Franconia, bounded by
the principality of Bayreuth, and the bishopric of Bamberg
and Wurtzburg. The country is mountainous and vast,
but in general it is fertile, and produces considerable
quantities of corn and tobacco, and along the Mayn good wine.
It has good pastures, and the breed of cattle is excellent.
The chief mines are of iron, those of other kinds
being neglected. It has several medicinal springs.
Anspach, together with Bayreuth, maintains a population of
300,000 on 2,320 square miles. The principal rivers are
the Rattitz, Unter or Rednitz, the Altmull, the Jagel,
the Wormitz, the Tauber, and the Mayn. It has 16 bo-
roughs, and 17 market towns, the principal of which are
Anspach, Schwabach, Kornburg, Cadolzburg, Roth, Gun-
zenhausen, Waffertundingen, Windhach, Freuchtwang,
Kreisheim, Colberg, and Uffenheim. The reigning
marsh of this principality has a fast and a voice in the council
of the princes of the empire, and is also co-constituent prince
of the circle of Franconia.
Anspach, a city of Germany, the capital of the above-
mentioned marquisate, situate on the river Rattitz, about 13
miles south west of Nuremberg. This city was rebuilt and
enlarged in 1710; it has a public library established in
1728, and a good cabinet of medals and curiosities.
N. lat. 49° 41'; E. long. 10° 42'.
ANSPESSADES, or LANSPESSADES, in the French
Hindery, a kind of inferior officers in the foot, below
the corporals, and yet above the common centinels.
The word is formed of the Italian lancia, lance, q. d.
broken lance; which was occasioned, hence, that they
were originally disdained gendarmerie, who, for want of
other subordiation, used a place of some distinction
in the infantry. There are usually four or five in each com-
pany.
ANSTRUTHER, in Geography, a sea port town of
Scotland, and a royal borough, situate in the eastern part
of the county of Fife, towards the German sea. It is divided
into two towns. Lower and Upper (which are royal boroughs)
by a small river: the harbour is capable of receiving only
small vessels, employed principally in the fisheries of the place.
N. lat. 56° 57'; W. long. 1° 10'.
ANSWER, in Lawc. See REJOINER.
ANT, in Entomology, the common English name of the
species of Linnaeus, and synonymous with emmet. That
collective creature terms emmet is also called an ant. See
BiNICA, and Termes.
This is an insect extremely injurious to pasture lands and
lands; in the former, by throwing up hills, and, in the
latter, by feeding on the fruit, &c. The best methods of
keeping them from trees, are those of having the earth
round them constantly dug up; and the application of saw-
dust, coal-dust, or other matters of the same kind, about
their roots. The same purpose may also be effected by
covering the bottom part of the trees with tar; but as this
substance is prejudicial to trees, night-soil may perhaps
answer better, as it is found to destroy them when spread
about, or put into the little holes which they throw up.
A liquor, prepared by boiling rain water with black hops
and sugar, has lately been made use of by M. Tatin, for
destroying these animals, it is said, with considerable
success. Where this liquor is employed, care should, however,
be taken that the ground where they inhabit be perfectly
fumigated with it.
ANT-Bear, or ANT-EATER, in Zool. See Mrm RANGE.
ANT-Egg is a name popularly given to a kind of little
white bulbs found in the banks or motts of ants, ordinarily
supposed to be the ovum of the insect. These are not pro-
perly the eggs of ants, but the young brood in their incipi-
te stage; when they appear like vernicles or little
worms, wrapped up in an film or skin, composed of a fort
of silk, which they spin out of themselves in the manner
of silk-worms and caterpillars. At birth they appear motile,
and after a few days, they manifest some symptoms of
flexion and extension; then they seem yellowish and hairy,
and in the form of small maggots which they assume, they
continue to grow till they are almost as large as ants. After
having passed their metamorphosis, and when they appear
in their proper shape, they exhibit a black speck near the
anus, which Mr. Leeuwenhoek and also Mr. Gould imagine
to be their feces or digested food.
Sir Ed. King noticed several of these vulgarly reputed
eggs, in some of which he found only a maggot in the cir-
cumstances as above described; while in another, the mag-
ogot had begun to put on the shape of an ant about the
head, having two little yellow spots, where the eyes were
to be. And in others, a farther progress was observed, the
included maggot being furnished with every thing to com-
plete the shape of ant, but wholly transparent, the eyes only
excepted, which were as black as bugs. Lastly, in others,
he took out every way perfect and complete ants, which
immediately escaped about the cell.
The true ants' eggs are the white substance which, upon
opening their banks, appears to the eye like the scattterings
of fine white sugar, or salt, but very soft, and tender.
Examined by a microscope, it is found to consist of sev-
eral pure white appearances in distinct membranes, all
figured like the inner part of birds' eggs, and as clear as a
fish's bladder. The same substance is found in the bodies of
the ants themselves. This spawn, when emitted, they lie in
multitudes on, to be fed; till in some time it is turned into
little vernicles, as small as mice, commonly called ant-eggs.
See PorNICA.
ANT-hills are little hillocks of earth, which the ants
throw up for their habitation and the breeding of their
young. These hills are very extravagant to the farmer, depriving
him of as much land as the hills cover, which may, in
many cases, be computed at a tenth part or more of his
great lands; and in some places, where negligence has suf-
ficed them to multiply, almost half of it has been rendered
unprofitable. In order to remove nuisances of this kind in
lands, it has been a custom in some places at the
beginning of winter, and often when the weather was not
very cold, to dig up the ant-hills, three or four inches below
the surface of the ground, and then to cut them in pieces,
and scatter the fragments about. But this practice only
disembowels the ants, instead of destroying them, as they
hide
hide themselves among the roots of the grans for a little time, and then collect together again upon any little eminence, of which there are generally great numbers ready for their purpose; such as the circular ridges round the hollows where the hills flood before. It is therefore a much better method to cut the hills entirely off rather lower than the surface of the land, and to let them lie whole at a little distance with their bottoms upwards; as by this means the rusts, which are known to be very tenacious of their abodes, continue in their habitations, until the rains, by running into their holes of communication, and flagrating in the hollows formed by the removal of the hills, and the frits, which now readily present, destroy them. If a little foot were fown on the places, and washed in with the rains, it would doubtless contribute greatly to the effect intended. The hills, when rendered mellow by the rains, may be broken and dispersed about the land, or removed for the purpose of forming into compost with dung, lime, or other habitanes. By this method of cutting the hill's one other advantage is gained, the land soon becomes even and fit for mowing. In wet seasons, heaps of sandy particles are formed by these insects among the grans, called by labourers fowad-hills, which quickly take off the edge of the fleythe. These, which are very light and compreßmable, may be conveniently removed by frequent heavy rolling in the early spring months. In the rural economy of Norfolk, a practice of cutting and burning the ant-hill: that are formed on grans land is mentioned by Mr. Marshall. The process is, to cut them up with a heart-shaped sharp spade or shovel, in irregular lumps of from ten to fifteen inches diameter, and from two to five or six inches thick. These are to be turned the grans side downwards, until the mould side is thoroughly dry, and then to be set the grans side outwards, until they are dry enough to burn. The fire may be kindled with brash wood, and kept smothering, by laying the fods or lumps on gradually, as the fire breaks out, until ten or fifteen loads of ashes are raised in one heap, which the workers there complete for a shilling or eighteen pence each load of ashes. The places from which the hills have been removed may be fown with grans seeds. Besides the destruction of the ant, this is a ready, though by no means an economical way of raising manure.

But in the sixteenth volume of the Annals of Agriculture, Mr. Young recommends the method of running down the ant-hills, instead of cutting them, as the best practice; and says, that he rode over a large fquare, which he should not have known had ever been infested with these hills, if he had not been afforded that it was once covered with them. No other method had been used but that of repeated rollings with a very heavy roller.

**ANT.** See *Fornica-Loc.*

**ANT, nufh,** the name given by Linser and Ray, to a peculiar species of ant, which is of the number of the perfumed insects. It is found on dry banks, and so much smaller than the common ant, that it needs no other distinction. Those of this species which are without wings are of a yellowish colour, and when bruised or crushed emit a sharp and acid smell, as the common ant does; but those which have wings are coal-black, and these, instead of the four smell of the others, emit a perfume not to be endured for its strength. The smell of all the perfumed insects goes off in keeping; and these little creatures, after they have been dry and dead some time, are found to smell less strongly, but much more agreeably. Phil. Trans. N° 77, or Ab. vol. ii. p. 702.

**ANT, visiving.** At Paramaribo, a Dutch colony in the province of Surinam, there are ants which the Portuguese call visiving-ants; they march in troops; and as soon as they appear, all the coopers and chefs of drawers are laid open, which they clear of rats, mice, and a peculiar sort of insect in that country called cockerlars, and of other noxious animals. If any one chance to molest them, they fall upon him, and tear in pieces his flockings and flocks. Their visits are rare; and they do not sometimes appear for three years. Templeman's Hist. vol. i. p. 36.

**ANTA,** in the Ancienr Architecture, a square column, or pillar, placed at the corners of the walls of temples and other edifices.

Thefe took their name, according to M. Perrault, from the proposition *anta, before,* because placed before the walls and coats of buildings, to secure or strengthen them. The *anta* stood on the wall, with a projection equal to one-eighth of their face, provided there were no ornament that had a greater projection; but it was a rule, that the projection of the *anta* should always equal that of the ornaments.

There are also antas at doors and gates. Pecuus confines their use to this last place.

Vitruvius calls those that have but two faces out of the wall angular *anta*, to distingufh them from others which have three faces digenaged, and which are placed at the ends of the walls of porticos. See AMTICUM.

**ANTA, or HANTE, in Geography,** a small kingdom or province on the gold-coast of Africa, is bounded on the north by the country of Adom, on the north-east by Mampo, by Asim on the west, and on the south and south-east by the ocean. Its extent from east to west is about ten leagues, the country is mountainous, and covered by large trees, among which are situated many fine villages. Anta was formerly powerful and populous, inhabited by a bold and rapacious people, who greatly annoyed the Europeans by their frequent incursions; but by continual wars with Adom and other neighbouring districts, they are now embezzled, and the country is almost depopulated. The land is well watered, the valleys are rich and extensive, and the productions, which are abundant, are rice, the beef, maize, sugar-canes, yams, and potatoes. This country is the most healthy of any along the coast; so that different writers have observed, that the number of deaths here bears no proportion to that in any other of the territories on the coast of Guinea. The principal villages of this country are Bourn-try or Botro, Bayera or Petre Grand, Tokorra, which surphal all the others in extent and beauty, So-conda, Anta, and Sama. See the several articles. The king of *anta* has fixed his residence four miles from the Dutch fort; as he thus enjoys the protection of the Europeans, and is in some measure secured from the apprehensions occasioned by the incursions of the Adomfs. Med. Un. Hist. vol. xii. p. 401, &c.

**ANTA, in Zoology.** See TARRIR.

**ANTAB, in Geography,** a town of Syria, 42 miles south of Aleppo.

**ANTACÆUS, in Hiftryology,** a name first given by the Greek writers Albin and Strabo, to the *tachipis fiscus*, the thugs fish, or *Husco*; and afterwards by Jonon and others, not only to this fish, but to the common sturgeon.

**ANTACHATES, or ad* by some naturalists, for a kind of bituminous stone of the nature of amber, though of different colour, which in burning yields a smell like myrrh.

**ANTACIDS, in the Materia Medica,** is used by some writers to denote medicines proper to correct and acid humours.

**Antacids are chiefly of the alkaline kind.**

Under the class of *antacidus* come, 1. Abihorsents, as chalk, magnesia, corina, calc. pellic, és, coal, lead, haematite, and steel fillings. 2. Obsturants, as oils and fats. 3. Immutants, as luscious farts and scamps.

**ANTACIDS denote medicines suited to correct acrimony, either in the whole system, or in particular parts of it.** See ACROMYNY.
ANTAE, in Ancient Geography, a people placed by Procopius and Jornandes near the mouth of the Danube.

ANTAEOLIS, so called from Antaeus, overcome by Hercules, a town of Egypt in the Thebaid, on the eaid side of the Nile; was the capital of the Nome Antaeopolis, about 32 miles above Panopolis, and about the same distance below Neopolis. The Thebaid, after the age of Constatine, was divided into two provinces; and Antaeopolis became the metropolis of the first Thebaid, and had bishops. This city contained the magnificent temple, which the Egyptians, according to Diodorus Siculus, built in honour of Antaeus. No part of it is now remaining but the portico, supported by large columns, and covered with large domes, one of which may be distinguished, thirty feet long by five wide. The ceiling, painted with gold and azure, has preserved the liveliest of its colours. The Turks have converted it into a stable, where they collect their herds. On the ruins of Antaeopolis is now built a miserable borough called Game el Kebire. Savary's Travels. vol. i. p. 560.

ANTAEUS, in Entomalogy, a species of scarabæus that inhabits America. The thorax has three horns, the middle one the longest, and firepl. head plumed; wing-cases very smooth. Fabriucus, Jablomsky, and Gmelin. The female has no horns.

ANTAEUS, in Fabulous History, a gigantic king of Libya, said to be the son of Neptune and Terra, and of the enormous stature of 64 cubits. In his conflict with Hercules, he was repeatedly overthrown, and laid on the ground half dead; but as often as he touched the earth, he obtained assistance from his mother, and acquired fresh strength. Hercules, therefore, found it necessary to raise him from the ground, and suspending him in the air, squeezed him to death. This Antæus is said to have built the town of Tingis on the straits of Gibraltar, where he was interred. The Greek geographers pretend that this Antæus founded Antæopolis in Upper Egypt; and Diodorus Siculus informs us, that Chesir assigned to him the government of Libya and Ethiopia. But it is not easy to determine how the Egyptians should raise to the rank of their gods the Grecian Antæus. It is probable, however, that the temple in which Antæus was honoured by the ancient inhabitants of Egypt, was ruined; and that in process of time the Greeks, under the reign of the Ptolemies, substituted for the worship assigned to the Egyptian Antæus, that of the giant of the same name, slain by Hercules.

ANTAEUS, in Ancient History, was probably the same with Atlas; and they are represented by ancient writers as two of the first kings of Mauritania. They were both the sons of Neptune, who reigned over Mauritania, Numidia, and a great part of Africa; and they both ruled over a great part of Libya; and they both ruled over a great part of Africa, particularly Tingitania. Hercules defeated and slew Antæus, in the war in which he dispossessed Atlas of Libya. Atlas and Antæus invaded Egypt, and contended with Hercules in the wars with the gods, and were both vanquished by him. Antæus, as well as Atlas, was famed for his knowledge of the celestial sciences; and from this circumstance it may reasonably be inferred, that they were, under different names, the same king of Mauritania. Antæus, in his wars with Hercules, commanded an army of Egyptians and Ethiopians, and behaved with great resolution and fortitude. By means of powerful reinforcements of Libyan troops, he cut off a great number of Hercules's men; but that celebrated commander, having at last intercepted a strong body of Mauritanian or Libyan forces, that were sent to the relief of Antæus, gave him a total overthrow, and put him and the rest part of his troops to the sword. This decisive action put Hercules in possession of Libya and Mauritania, and consequently of all the riches of those kingdoms; and hence arose the fable, that Hercules, finding Antæus, a giant of an enormous size, with whom he was engaged in single combat, had recourse to the artifice mentioned in the preceding article for putting him to death. Hence likewise may be deduced the fable, relating that Hercules took the globe of Atlas upon his own shoulders, overcame the dragon that guarded the orchards of the Hesperides, and made himself master of all the golden fruit. The golden apples so frequently mentioned by the old mythologists, were the treasures that fell into the hands of Hercules upon the defeat of Antæus; the Greeks giving the original word ἄτνος, riches, the signification soiled to their own term ποικλα, apples. After the most diligent and impartial examination of all the different hypotheses of historians and chroniclers, relating to Atlas and Antæus, there is no one that appears so little encumbered with difficulties as that of Sir Isaac Newton. According to this illustrious author, Ammon, the father of Sefac, was the first king of Libya, or that vast tract extending from the borders of Egypt to the Atlantic Ocean; the conquest of which country was effected by Sefac during his father's life. Neptune afterwards excited the Libyans to a rebellion against Sefac, and slew him; and then invaded Egypt, under the command of Atlas and Antæus, the son of Neptune, Sefac's brother and admiral. Not long after, Hercules, the general of Thibus and Ethiopia, for the gods, or great men of Egypt, reduced a second time the whole continent of Libya, having overthrown and slain Antæus near a town in the Thebaid, from that event called Antæa, or Antæopolis. Such is the opinion of Sir Isaac Newton, who endeavours to prove, that the first reduction of Libya by Sefac happened a little above a thousand years before the birth of Christ, as the lat, by Hercules, occurred some few years after. Anc. Hist. Hill. vol. xvi. p. 160.

ANTAGONIST, formed from ἀνταγωνιστής, and ἄνταμν, I contend, among the Ancients, denotes an adversary in battle. In this sense the word is rather used in speaking of sportive combats, or games, than of serious fighting.

ANTAGONIST also denotes one of the parties in literary disputes.

ANTAGONIST muscules, in Anatomy, are those which have opposite functions. Such are the flexor and extensor of any limb, the one of which contracts it, and the other stretches it out; and also the adductors and adductors. Solitary muscles are those without any antagonists; as the heart, &c.

ANTALGIC, from ἀνταλγή, pain, is epithet given by some writers to medicines proper for abating pain. In this sense antalgics amount to the fame with anodynes.

ANTALIS, in Cosmology, the name given by Argenville to the species of dentulus, called entalis by Linnaeus.

ANTALKALINES, in the Materia Medica, signify medicines suited to correct alkaline farts, or alkaline matters in the whole body, or in particular parts. Dr. Cullen observes (Mat. Med. vol. ii. p. 423.), that no alkaline farts, in its separate state, ever exists in the blood-vessels of the living human body. He accordingly expounds the doctrine of Dr. Boerhaave, who treats "De Morbis et Alkalii sponteant," as incorrect and erroneous, and leading to no occasion for the use of antalkalines: and he adds, that the only occurrence requiring them is a very rare one, that of a pure alkali being thrown in by mistake or accident into the stomach; and the means of taking off its irritation by acids is sufficiently obvious. It is farther to be remarked, that as the alkali, in any noxious quantity, cannot have been introduced without hurting the mouth, fauces, and esophagus, it is always necessary, in such cases, along with the acids, to employ the large use of diluents and demulcents.

ANTAMBA,
ANTAMBA, in Zoology, an animal of Madagascar, probably the same with the congo of Congo, is a variety of the leopard, as large as a dog, with a round head; and, according to the relations of the negroes, is like a leopard, and devours both men and cattle. It is found only in the most deforested parts of the island.

ANTANACLASIS, from ant and causulis, repellitur; a figure in Rhetoric; whereby the same word is repeated, but in a different signification—As, "Let the dead bury the dead." "Dum vivimus, vivamus." This figure carries with it a poignancy; and when it appears natural and easy, discovers a ready turn of thought.

ANTANAGOGIC, from ant and argumentum; a figure in Rhetoric, when, not being able to answer the accusation of the adversary, we return the charge, by loading him with the same or other crimes; which is usually called recrimination.

ANTANDRO, in Geography, a town of Asia Minor, in Cyprus, who, according to Strabo, who places it on the north side of the gulf of Adramyttium. Stephanus Byz. says, that the Cimmerians possessed it during a century. According to Strabo, these people, conducted by Lygdamis, made this town their place of arms. Servius says, that Antandros was founded by the inhabitants of Andros, after they were driven from their own island on account of their sedition. Others say, that the Thracians, having made Poleymadas a prisoner, obtained this city as the price of his ransom. Some authors place it at the foot of Mount Ida; and allege, that it gave name to the small chain of mountains extending from Troy to the sea. See Andros.

ANTARES, a people who inhabited Caria. See Boer-havia.

ANTAPHRODISIC, from ant and Apollo, Venus; an epithet given to medicines which diminish the semen, and check or extinguish the incitements to venery. It is doubtful whether there be any medicines of specific power for this purpose; and if there be any which have these effects, it is by answering particular indications, under the titles of which they should only be mentioned, and not under a general term of no defined operation.

ANTAPOCHA, in the Civil Law, denotes one's acknowledgment in writing of money paid, in the way of rent, pension, interest, or the like incumbrance. Such instrument, or antapocha, the debtor gives upon making payment to the creditor, to serve as a proof of the charge or incumbrance for futurity; and exclude any claim of prescription against the payment of it. The antapocha differs from the apogedo, in that this latter is given by the creditors to the debtor, the former vice versa.

ANTARADUS, in Ancient Geography, a town of Syria, commonly called Tortosa, was situated over against the ancient Arados, to the right of the river Euphrates, at a small distance from the sea. In the fourth century, about A. D. 330, it continued to be known by its old name, as appears from the "Itinerarium Hierosolymitanum," which, with its other name Confluentes, given to it by its earlier Confluentes, were diluted some centuries afterwards, in, or perhaps before, the time of the croisades. Shaw's Trav. p. 266.

ANTARCTIC Pole denotes the southern pole, or end of the earth's axis. The word is composed of ant, contra, and spelix, urfa, bear; as being opposite to the artic pole. The stars near the antarctic pole never appear above our horizon.

ANTARCTIC circle, is one of the lesser circles of the sphere, parallel to the equator, at the distance of 23° 50' from the south pole. It takes its name from its being opposite to another circle, parallel likewise to the equator, and at the same distance from the north pole, called the arctic circle.

ANTARCTICA, in Entomology, a species of SpheX, with the lize of the common wasp. It is black, with ferruginous legs and antennae. Gmelin. Inhabits the Cape of Good Hope.

ANTARCTICA, in Ornithology, a species of Procellaria that is found within the antarctic circle. It is brown above, beneath bluish white; tail white, black at the tip; legs lead colour. Gmelin. This is the antarctic petrel of Forster and Cook; petrel antarcticus, ou damier brun, of Buffon; and petrel brun et blanc of Bontinck. It is about the size of a large pigeon, and the length is nineteen inches, of which the bill is one inch and an half, and is brown with a black tip; the second quill feathers are white, with dark brown tips; the quills are dark brown, with the inner webs of some next the body white. These birds have been met with in flights of twenty or more, by navigators, in S. lat. 61°. 30' N.

ANTARCTICA, is a species of Anteodytes; called by Forster the antarctic penguin. The beak is black, legs reddish, and a black line on the throat. Gmelin.

The length of this bird is twenty-five inches; the weight eleven pounds and a half. Bill nearly three inches in length, black, and the under mandible somewhat truncated; iris pale yellow; upper parts of the body black, beneath glossy white. Under the chin is a narrow blackish streak passing backwards towards the hinder part of the head, and somewhat bent about the region of the ears. Wings above blue-black, the lower margin and inside white; tips black. Tail cuneiform; the feathers, or rather bristles which compose it, black, and thirty-two in number. The feet, which are reddish, or rather flesh colour, have the toes black. Latham, Sc.

This species inhabits the South Sea, from 45° to the antarctic circle; and is frequently found on the icy mountains and islands in those regions, according to Forster, Ellis, and other naturalists and navigators.

ANTARCTICUS, in Entomology, a species of Tabanus that inhabits America. It has four brown stripes across the eyes, and the flanks of the legs are white. Fabricius and Gmelin.

ANTAURES, in Astronomy, the Scorpion's Heart; a fixed star of the first magnitude, in the constellation Scorpio.

ANTASTHMATICS, in the Materia Medica, denote medicines that are supposed to cure asthma; or, in general, to relieve difficult breathing.

ANTASTROPHIC, from ant and splex, I turn; in Rhetoric, a species of Anteposition.

ANTAVARE, in Geography, a province of Madagascar, is situated to the north of Bistiane, in 21° 30' of S. lat. and bounded by the province and cape of Manan. It is watered by the river Mananar, whose source is in the mountains of Ambohitrombe, or red mountains, situated about 15 leagues farther north-west; and which runs south-east and east. Antavare is extremely fertile in rice, yams, bananas, sugar-cane, and honey, of which wine is made; and it abounds in cattle and goats, and all sorts of fowls and provisions. The French discovered in this province gold dust by means of the negroes, who offered it for sale.

ANTE, in Geography, a river of France, which runs into the Drire at Calvados, in the department of the Calvados.

ANTE, a town and port of Africa, in Guinea, three leagues from the cape of Three Points.

3 A

ANTEA,
the flood, but he has contented himself with merely setting down the years of the fathers' age, in which the several descendants of Adam, in the line of Seth, were begotten, and the length of their respective lives; and therefore, in this period, nothing more can be done than to ascertain the years of the lives and deaths of those patriarchs, and the distance of time from the creation to the deluge. This, indeed, might easily be done, if there were no varieties in the several copies of the writings of Moses, to which we have now access, which are the Hebrew, the Samaritan, and the Greek version of the Septuagint: but these differ considerably from one another; and hence learned men, as they have preferred one copy or the other, are much divided in their opinions concerning the first ages of the world. In order to enable our readers to judge of the variations of the three copies above mentioned, in this period, we shall subjoin a table extracted from the Ancient Universal History, in which the corresponding numbers of each will appear; and we shall also add those of Josephus, as they have been corrected by Dr. Wells and Mr. Whiston; a correction which became indispensably on account of the corruptions that have been introduced into the present copies of that historian.

A Table of the Years of the Antediluvian Patriarchs.

<table>
<thead>
<tr>
<th>Their ages at their sons birth</th>
<th>Years they lived after the sons birth</th>
<th>Length of their lives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam, - 130 120 230 130</td>
<td>800 800 700</td>
<td>930 930 930</td>
</tr>
<tr>
<td>Seth, - 135 125 205 125</td>
<td>807 807 707</td>
<td>912 912 912</td>
</tr>
<tr>
<td>Eno, - 90 90 190 90</td>
<td>815 815 715</td>
<td>905 905 905</td>
</tr>
<tr>
<td>Cainan, - 70 70 170 70</td>
<td>840 840 740</td>
<td>916 916 916</td>
</tr>
<tr>
<td>Mahalalel, - 65 65 165 65</td>
<td>830 830 730</td>
<td>895 895 895</td>
</tr>
<tr>
<td>Jared, - 162 162 162 162</td>
<td>850 785 800</td>
<td>912 912 912</td>
</tr>
<tr>
<td>Enoch, - 65 65 165 65</td>
<td>300 300 200</td>
<td>365 365 365</td>
</tr>
<tr>
<td>Methu'elah, - 187 187 187 187</td>
<td>782 653 802</td>
<td>969 720 969</td>
</tr>
<tr>
<td>Lamech, - 182 188 188 188</td>
<td>595 600 565</td>
<td>777 653 753</td>
</tr>
<tr>
<td>Noah was aged, 600 600 600 600</td>
<td>To the Flood, 1656 1307 2262 1556</td>
<td></td>
</tr>
</tbody>
</table>

To this Table it will be necessary, in order to explain the consequence of these variations, to add separate chronological tables, shewing in what year of his contemporaries the birth and death of each patriarch happened, according to the computation of each of the said three copies.

A Chronological Table of the Years of the Patriarchs, according to the Computation of the Hebrew.

<table>
<thead>
<tr>
<th>The beginning of the world.</th>
<th>Years of Seth.</th>
<th>Years of Enos.</th>
<th>Years of Cainan.</th>
<th>Years of Mahalalel.</th>
<th>Years of Jared.</th>
<th>Years of Enoch.</th>
<th>Years of Methu'elah.</th>
<th>Years of Lamech.</th>
<th>Years of Noah.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam, created, - 1</td>
<td>1</td>
<td>120</td>
<td>135</td>
<td>120</td>
<td>135</td>
<td>135</td>
<td>120</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Seth born, - 130</td>
<td>130</td>
<td>235</td>
<td>375</td>
<td>265</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Enoa born, - 230</td>
<td>230</td>
<td>375</td>
<td>375</td>
<td>265</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Cainan born, - 375</td>
<td>375</td>
<td>375</td>
<td>375</td>
<td>265</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Mahalalel born, - 375</td>
<td>375</td>
<td>375</td>
<td>375</td>
<td>265</td>
<td>160</td>
<td>160</td>
<td>160</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Jared born, - 460</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>460</td>
<td>800</td>
</tr>
<tr>
<td>Enoch born, - 622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>535</td>
</tr>
<tr>
<td>Methu'elah born, - 622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>622</td>
<td>535</td>
</tr>
<tr>
<td>Lamech born, - 874</td>
<td>874</td>
<td>874</td>
<td>874</td>
<td>874</td>
<td>874</td>
<td>874</td>
<td>874</td>
<td>874</td>
<td>535</td>
</tr>
<tr>
<td>Adam dies, - 930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
</tr>
<tr>
<td>Enoch translated, - 930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
</tr>
<tr>
<td>Seth dies, - 1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
<td>1040</td>
</tr>
<tr>
<td>Noah born, - 1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
<td>1056</td>
</tr>
<tr>
<td>Enoa dies, - 1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
</tr>
<tr>
<td>Cainan dies, - 1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
<td>1255</td>
</tr>
<tr>
<td>Mahalalel dies, - 1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>Jared dies, - 1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
</tr>
<tr>
<td>Japhet born, - 1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
<td>1556</td>
</tr>
<tr>
<td>Shem born, - 1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
<td>1558</td>
</tr>
<tr>
<td>Lamech dies, - 1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
<td>1651</td>
</tr>
<tr>
<td>Methu'elah dies, - 1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
<td>1656</td>
</tr>
</tbody>
</table>
A Chronological Table of the Years of the Patriarchs, according to the Computation of the Septuagint.

<table>
<thead>
<tr>
<th>Name</th>
<th>Years of the world</th>
<th>Years of Seth</th>
<th>Years of Enos</th>
<th>Years of Cainan</th>
<th>Years of Mahalaleel</th>
<th>Years of Jared</th>
<th>Years of Enoch</th>
<th>Years of Methuselah</th>
<th>Years of Noah</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam created</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seth born</td>
<td></td>
<td>190</td>
<td>205</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enos born</td>
<td>270</td>
<td>255</td>
<td>265</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cainan born</td>
<td></td>
<td>255</td>
<td>265</td>
<td>195</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahalaleel born</td>
<td>305</td>
<td>305</td>
<td>305</td>
<td>265</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jared born</td>
<td></td>
<td>460</td>
<td>472</td>
<td>287</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enoch born</td>
<td>522</td>
<td>522</td>
<td>522</td>
<td>457</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methuselah born</td>
<td>587</td>
<td>587</td>
<td>587</td>
<td>514</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lamech born</td>
<td>654</td>
<td>654</td>
<td>654</td>
<td>514</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noah born</td>
<td>707</td>
<td>707</td>
<td>707</td>
<td>392</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enoch translated</td>
<td>887</td>
<td>887</td>
<td>887</td>
<td>757</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adam dies</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>807</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seth dies</td>
<td>1422</td>
<td>1422</td>
<td>1422</td>
<td>807</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enos dies</td>
<td>1140</td>
<td>1140</td>
<td>1140</td>
<td>815</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japhet born</td>
<td>1209</td>
<td>1209</td>
<td>1209</td>
<td>815</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shem born</td>
<td>1209</td>
<td>1209</td>
<td>1209</td>
<td>815</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cainan dies</td>
<td>1235</td>
<td>1235</td>
<td>1235</td>
<td>849</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mahalaleel dies</td>
<td>1290</td>
<td>1290</td>
<td>1290</td>
<td>849</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jared, Methuselah, and Lamech die</td>
<td>1307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To the varieties exhibited in the two last tables, others might be added, by admitting the various readings of some numbers in the Samaritan and Septuagint; for as to the Hebrew copies, there is here a confluent agreement among them.

The manuscript from which the Samaritan Pentateuch was published, agrees exactly with the Samaritan numbers given by Eusebius. But St. Jerome tells us that, in his time, there were some Samaritan copies which make Methuselah 187 years old at the birth of Lamech, and Lamech 182 at the birth of Noah, just as the Hebrew does. Now if these numbers be approved as the true original numbers, the interval from the creation to the flood will be 1556 years; differing from the Hebrew computation but 160 years in the age of Jared at the birth of Enoch; and if this last be allowed to be a mistake of the transcriber, by his dropping a number, and writing 62 instead of 162, as has been suspected, the Samaritan will be perfectly reconciled with the Hebrew, and all difference between them vanish.

Scaliger,
Sealiger, on the authority of an old Samaritan chronicle, having at the end a table of the years of the patriarchs to the time of Moses, would correct two of the Samaritan numbers in Eusebius; viz., instead of 65, the age of Mahalalel when he begat Jared, he thinks it should be 75; and instead of 67, the age of Methuselah when he begat Lamech, he would have it 77. By which alterations he reckons 20 years more to the flood than Eusebius and the manuscript; that is, 1327; but as he acknowledges the table wherein he grounds these corrections, contains some great absurdities, it seems unreasonable to oppose it to the joint authority of Eusebius and the Samaritan manuscript.

As to the Septuagint, in the common editions of that version, the age of Methuselah at the birth of Lamech is 167; and consequently the sum of this period, according to them, is no more than 2242. But in this case Methuselah will outlive the flood 14 years; and we may well wonder, with Eusebius, where he was preferred. To obviate this objection, we are told, that, in some copies, Methuselah is said to have lived but 782 (not 802) years after the birth of Lamech, and no more than 949 in all. But the Alexandrian manuscript entirely takes away the difficulty, by giving the same number in this place with the Hebrew.

Pezron is of opinion, that the age of Lamech at the birth of Noah should be but 182, as it is both in the Hebrew and in Josephus; supposing, with St. Austin, that the present number is the error of the scribes, who first copied the original Septuagint manuscript in Ptolemy's library. So that he computes 2256 years to the flood. And, if this correction be admitted, and one more mentioned also by St. Austin, viz., that Lamech lived 345 years after the birth of Noah, and not 565, as in the present copies, there will then remain no other difference between the Septuagint and the Hebrew than 600 years added to the ages of the six patriarchs when they begat their sons; and Methuselah will, conformably to the Hebrew and Samaritan, die in the year of the flood.

The chronology of the learned archbishop Usher has been followed in the calculations of this period; and they may, with very little trouble, be reduced to that of the Samaritan or Septuagint, by those who prefer the accounts of those copies.

As in the course of this work we shall collect, under separate articles, the leading particulars which sacred history has recorded concerning the principal patriarchs, of the Antediluvian world, it is needless to enlarge in this place. It will be sufficient to observe, that the whole progeny of Adam, of whom we have any mention in scripture, were the descendants of Cain and Seth, and the following genealogical table exhibits their succession.
Sacred history is chiefly confined to the line of Seth, and speaks few particulars concerning that of Cain, so that no connectives can be formed by long he or any of his de-
scendants lived. The whole of what we know is, that
Laemach, the ninth in descent from him, married two wives,
Adah and Zillah, which connection furnishes the first known
instance of polygamy; that by the former he had two sons,
Jabal, who was the first that dwelt in tents and fed cattle, and
Jith, the inventor of metal; and by the other, a son
named Tubal-Cain, who founded the art of forging and
working metals. Zillah likewise brought him a daughter
named Naamah, who is supposed to have invented spinning
and weaving. For other particulars, see Laemach.
The posterity of Cain became in a very great degree degenerate
and wicked; while, on the other hand, the descendants of
Seth were as eminent for their piety and virtue. In
process of time, however, or after seven generations, according
to Josephus, they also became corrupt and profligate; and
every kind of wickedness overspread the earth. At length the
race of man became incorrigible, and all the means which
Providence had taken for awakening and reclaiming them were
ineffectual; so that he pleased God, in just displeasure and
after signal forbearance, to exterminate the whole species,
Noth and his family excepted, by the deluge.
Of the Antediluvian period some accounts have been
transmitted to us by those ancient authors who have
recorded the Pheneic, Babylonian, and Egyptian
antiquities. Sanchoniatho (who is supposed by some to
have been contemporary with Gideon, or with David; wuhil
others deny the existence of such a person, and consider
his history as a fiction of Philo Bibius for discrediting
Josephus’s book against Apion) wrote the Pheneic
antiquities. His history commences with the origin
of the world and of mankind; but as it was written with
a view of apologizing for idolatry, he deduces the his-
tory, not from Adam in the line of Seth, but in the
idolatrous line of Cain, nor does he make the least mention
of the deluge. The first pair of mortals with whom his
history begins, are called by Philo, his translator, Proto-
gonus and Eon. Their issue were designated Genus and
Genea, and they dwelt in Pheneica. From Genus sprung
Phos, Phur, and Phlox, that is, light, fire, and flame.
These found out the method of producing fire by rubbing
pieces of wood against each other, and taught men its use.
Their fons were of enormous height and bulk, and gave to
the mountains of which they took possession their own names of
Cainus and Libanus, Anthbagus and Brathys.
From these again, in the fifth generation, proceeded Memnunus
and Hyphuranus, who were so denominated by their mothers,
who lived in a brutal state of prostitution. Hyphuranus
inhabited Tyre, and there invented the art of making bricks
with reeds and rushes, and the papyrus. He quarrelled with
his brother Ufous, who was the chief inventor of a covering
for his body, made of the skins of wild beasts; and he also
made a raft of boughs, and ventured upon it into the sea.
He likewise confectioned two rude flumes or pillars to fire and
wind, and worshipped them, pouring out to them the blood
of such wild beasts as had been caught in hunting.
Afterwards, however, flumps of wood and pillars were also
confectioned and worshipped as deities. In the next genera-
tion succeeded Agurus and Haneus, the inventors of the arts
of hunting and fishing, from whom the names of huntsmen
and fishermen were derived. These begot two brothers, who
formed the seventh generation, and who discovered iron and
the method of forging it; one of these was called Chryfor,
the name with Hephaestus or Vulcan, and exercised himself
in words and charms, and divinations: he found out the
hook, bait, and fishing line, built light boats, and was the
first man that failed, so that after his death he was wor-
shipped as a god, and called Zeus Michlous, or Jupiter
the engineer; and some say, that his brothers invented the art
of making bricks. From this generation descended two
brothers, one called Techelles, and the other Garios Autancheon,
or the home-born man of the earth. These found out the art of mingling flax
or small twigs, with the clay of which they made bricks and
things. One of their potters, in the ninth generation, was
called Agres, field, and the other Agrot eros or Agrotes,
husbandman, who had a statue most worshipped, and a
temple carried about by one or more yoke of oxen, in Phe-
ncia; and among those of Bybus he is called by way of
eminence, the greatest of the gods. These first made
courtyards about houses, fencens, and caves or cellars.
 Husband-
men and such as use dogs in hunting, derive their origin
from these: and they are also called Aletes, and Titans.
From these succeeded, in the tenth generation, Amyus and
Magus, who taught men to form villages, and to feed
sheep. Of Amyus and Magus were descended Mifor and
Sydes; and the son of Mifor was Tantus or Thoth. The
Protogonus and Enion of the Pheneic genealogy, were,
without doubt, Adam and Eve; and Mifer, the Mzraim
of Mofes. From Protogonus to Mifor, Sanchoniatho reckons
11 generations; and from Adam to Mzraim, Mofes makes
12: so that Sanchoniatho falls short of Mofes only by one
generation, which is owing to his not having recorded the
flood. In this age there was one Elin, importing in Greek
Hyphus, the most high; and his wife was named Beruth,
who dwelt about Bybus; and by him was begotten one
Epicurus, or Autochthon, whom they afterwards called
Uranus, heaven. He gave his name to the element which
is over us, and on account of its excellent beauty, is called
heaven; and he had a father of the same parents, called Ge,
the earth, and by reason of her beauty, the earth was
denominated from her. Hyphus, the father of these, being
slain by wild beasts, was consecrated, and his children
offered sacrifices and libations to him. But Uranus, taking
the kingdom of his father, married his father Ge, and had
by her four sons; Hius, who is called Chitusus or Saturn;
Betylus; Dagon, who is Sitan, or the god of corn; and
Atlas; but by other wives, Uranus had a numerous
issue.
The Babylonian antiquities were collected by Berossus,
who was by birth a Chaldean, and lived in the time of
Alexander the Great. He gives a series of ten kings, who
reigned in Chaldea before the flood, and computes their
regnis by Sari or decades of years; making the whole sum
3200, or more accurately, 1600, years, which is a number
that offers no violence to the Mofe chronology. As these
ten succesions correspond to the ten generations that elapsed
between the creation and the flood, the first king, whose
name was Aloras, has been supposed to be the same with
Adam; and Xifithus, the same with Noah. Aloras
pretended to dominion by divine right, and maintained that God
himself had declared him the pallor of the people; a preroga-
tive that peculiarly belonged to Adam. Aliparas, the second
king, was succeeded by Amenon, or Amalrus, of the city of
Panibilla, probably the Sipharra of Polyteny, and sup-
posed by Sir Isaac Newton to be the Sepharvain of
Scripture. After Amenon and Ambalrus, who were both of
Panibilla, and the successors of Aliparas, arose Daommus,
an inhabitant of the same city, and a thief. The next
vint king, called Eudererebus, was of the same city; the
sexth or ninth was of another city, called Laranchel; and

the last of these, Ohartes or Ardates, was succeeded by his son Xiuthus, in whose time the great deluge happened. See Deluge.

Berosus ascribes the origin of the arts and sciences among the Antediluvians to the following circumstance. There appeared, says he, out of the Red Sea, at a place near the confines of Babylonia, a certain irrational animal, whose name was Oannes. His body resembled that of a fish, and beneath his head another grew; his feet were like those of a man, and proceeded from the fish's tail, and he had a human voice. This animal conversed with men in the day, and communicated the knowledge of letters, arts, and sciences; he taught men to dwell together in cities, to erect temples, to introduce laws, to acquire geometry, and to gather feeds and fruits; and in short, he imparted to mankind whatever was necessary and convenient for a civilized life. When the sun set, this animal, which was off the amphibious kind, retired into the sea, and stayed there during the night. This animal not only delivered his instructions by word of mouth, but wrote concerning the origin of things, and of political economy. Other authors have also mentioned this Oannes, with some trivial difference in their accounts. Hyginus also writes, that Eubabones, a name not very different from Oannes, came out of the sea in Chaldea, and explained astrology. According to Abydæus, a second animal, called Anædotos, and renewing the demi-god Oannes, arose out of the sea in the reign of Amelón; and in the time of Daonus, four such animals arose from the sea, and their names were Euedocus, Eucgamus, Eneubulus, and Antemus; and under Eucdæphus there appeared another animal, like the former, called Odæcon. All these explained more particularly what Oannes had delivered in a more summary and concise manner.

The Egyptians have also a series of kings, who, as they pretend, reigned in Egypt before the flood; and their account begins in the same year with that of Berosus. They had an ancient chronicle, extant among them not many centuries ago, which contained 30 dyadical princes who ruled in that country, by a series of 173 generations, through an immense interval of 36,525 years, during which period Egypt was successively governed by three different races, viz. the Aarises, the Mæthrias, and the Egyptians. Manetho, a writer somewhat later than Berosus, and whose remains furnish the ancient Egyptian history, has not adopted this extravagant number of years, though he has probably been led into errors in chronology by this old chronicle, which nevertheless some have supposed to have constituted a composition of later date than his time. This writer begins his history with 16 dyadical or reigns of princes; of whom the first seven were called gods, and the other nine demi-gods; these, he says, reigned 1685 years.

The knowledge we are able to deduce from the scriptures, the only source of authentic intelligence on this subject, concerning the religion, arts, and sciences, and policy of the Antediluvians, is very limited and imperfect, and depends more upon conjecture than upon certain conclusions from a detail of facts. Their religious rites, we know, consisted of sacrifices, both of the fruits of the earth and of animals; but it is not agreed, whether the blood and flesh of the animals, or only their milk and wool were offered. See Sacrifice. Some have endeavored to prove, that all the patriarchs from Adam had fated places, and both annual and weekly times set apart for divine worship, and also a separate maintenance for the priests; but these particulars, though they may be true, cannot be proved from the scripture. See Sabbath. The arts and sciences, as we may naturally suppose, made but slow progress during the period to which we now refer. It appears that the art of working metals was discovered by the last generation of the line of Cain, and nulce, which they might have been supposed to practice for their pleasures, was not brought to any perfection (if indeed it was actually invented) before the same generation. Some have supposed, that the science of astronomy was cultivated by the Antediluvians; but this opinion is probably owing to a misapprehension of Josephus: but if it was known, the progress they made in it, or indeed in any other science, was inconsiderable. It has been even doubted, whether or not letters were known before the flood. See Letters and Writing. As to their politics and civil constitutions, we can only say, that the patriarchal form of government was probably the first that was adopted; but this was set aside, when tyranny and oppression began to take place; and this change occurred much sooner, as we have reason to believe, among the race of Cain than that of Seth. Their communities were few, and consisted of much larger numbers of people than those which were formed after the flood; and it has been questioned, whether after the union of the two great families of Seth and Cain, there was any abolition of civil societies, or diversity of regular governments at all. It is more likely, that all mankind formed one great nation, living in a kind of anarchy, divided into several disorderly associations, which was almost the natural consequence of their having but one common language, and must have greatly contributed to the general corruption, that could not otherwise have so universally overspread the Antediluvian world. For this reason chiefly, as soon as the posterity of Noah were sufficiently increased, a plurality of tongues was miraculously introduced, in order to divide them into distinct societies, that they might not be so easily debauched for the future. See Confusion of Tongues, and Dispersion.

The Antediluvian world was, probably, flocked with a much greater number of inhabitants in proportion to the extent in which we may suppose it to be habitable than the earth, in its present state, is perhaps capable of containing or supplying. This increase of population seems naturally to follow from the great length of their lives, exceeding the present standard of life in the proportion of at least ten to one; the Antediluvians must, accordingly, in any long space of time, double themselves, at least, in about the 10th part of the time in which mankind do now double their number; for they began to procreate as early, and left off as late, in proportion, as men do now; and the several children of the same father seem to have succeeded as quickly one after another as they usually do at this day; and as many generations, which are but successive with us, were contemporaneous before the flood, the number of people living on the earth at once, would be sufficiently increased to answer any defect which might arise from other circumstances not considered. So that, if we make a computation on these principles, we shall find, that there was a considerable number of people in the world at the death of Abel, though their father Adam was not then 130 years old, and that the number of mankind before the deluge would easily amount to above 100,000 millions, even according to the Samaritan chronology; that is, to 20 times as many as our present earth holds, in all probability, now upon it, or can well be supposed capable of maintaining in its present constitution. It is now generally owned, as the result of good observations, that mankind double themselves in about 300 or 350 years; or, allowance being made for all excepted cases, such as wars, famines, &c. in about 400 years. So that allowing the period for doubling mankind from the creation.
creation to the deluge to be ten times shorter by reason of their much longer lives; if we have a series of 40 numbers, beginning at two, for so many God created at first, and doubling themselves in 40, or for convenience, in 41 years, at a mean, or one age with another, till the deluge, we shall, in some degree, obtain the sum total of mankind at the deluge, and also in the several ages before that time; though this period of doubling must still have been much shorter in the earliest, and longer in the latest times of the interval; which computation Mr. Whiston, who has furnished these observations has given in the following table.

<table>
<thead>
<tr>
<th>Number of Mankind</th>
<th>Plague of Mankind</th>
<th>Years of the World</th>
<th>Number of Mankind</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>2</td>
<td>500</td>
</tr>
<tr>
<td>16</td>
<td>12</td>
<td>6</td>
<td>500</td>
</tr>
<tr>
<td>32</td>
<td>20</td>
<td>6</td>
<td>500</td>
</tr>
<tr>
<td>64</td>
<td>30</td>
<td>8</td>
<td>500</td>
</tr>
<tr>
<td>128</td>
<td>42</td>
<td>8</td>
<td>500</td>
</tr>
<tr>
<td>256</td>
<td>56</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>512</td>
<td>72</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>1,024</td>
<td>90</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>2,048</td>
<td>110</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>4,096</td>
<td>132</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>8,192</td>
<td>156</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>16,384</td>
<td>182</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>32,768</td>
<td>210</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>65,536</td>
<td>240</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>131,072</td>
<td>272</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>262,144</td>
<td>306</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>524,288</td>
<td>342</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>1,048,576</td>
<td>380</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>2,097,152</td>
<td>420</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>4,194,304</td>
<td>462</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>8,388,608</td>
<td>506</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>16,777,216</td>
<td>552</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>33,554,432</td>
<td>600</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>67,108,864</td>
<td>650</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>134,217,728</td>
<td>702</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>268,435,456</td>
<td>756</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>536,870,912</td>
<td>812</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>1,073,741,824</td>
<td>870</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>2,147,483,648</td>
<td>930</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>4,294,967,296</td>
<td>992</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>8,589,934,592</td>
<td>1,056</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>1,717,989,184</td>
<td>1,122</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>3,435,978,368</td>
<td>1,190</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>6,871,956,736</td>
<td>1,250</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>13,743,913,472</td>
<td>1,312</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>27,487,826,944</td>
<td>1,374</td>
<td>10</td>
<td>500</td>
</tr>
<tr>
<td>54,975,553,888</td>
<td>1,436</td>
<td>10</td>
<td>500</td>
</tr>
</tbody>
</table>

This table is calculated at the long interval of 50 years, that it may appear that even under the number of mankind, there would be so many millions born into the world before the deluge came, that they would be obliged to spread themselves over the face of the earth, though but one half of the sum total of 429,490 millions had been alive at the time of the deluge; but as the interval here allowed may appear to be too long for the time of doubling, the second is calculated at the interval of 40 years, which comes nearer to the truth of the cause, though even this may exceed the time of doubling.

<table>
<thead>
<tr>
<th>Years of the World</th>
<th>Number of Mankind</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>200</td>
</tr>
<tr>
<td>550</td>
<td>400</td>
</tr>
<tr>
<td>600</td>
<td>800</td>
</tr>
<tr>
<td>650</td>
<td>1,000</td>
</tr>
<tr>
<td>700</td>
<td>1,500</td>
</tr>
<tr>
<td>750</td>
<td>2,000</td>
</tr>
<tr>
<td>800</td>
<td>2,500</td>
</tr>
<tr>
<td>850</td>
<td>3,000</td>
</tr>
<tr>
<td>900</td>
<td>3,500</td>
</tr>
<tr>
<td>950</td>
<td>4,000</td>
</tr>
<tr>
<td>1,000</td>
<td>4,000</td>
</tr>
<tr>
<td>1,050</td>
<td>4,000</td>
</tr>
<tr>
<td>1,100</td>
<td>4,000</td>
</tr>
<tr>
<td>1,150</td>
<td>4,000</td>
</tr>
<tr>
<td>1,200</td>
<td>4,000</td>
</tr>
<tr>
<td>1,250</td>
<td>4,000</td>
</tr>
<tr>
<td>1,300</td>
<td>4,000</td>
</tr>
<tr>
<td>1,350</td>
<td>4,000</td>
</tr>
<tr>
<td>1,400</td>
<td>4,000</td>
</tr>
<tr>
<td>1,450</td>
<td>4,000</td>
</tr>
<tr>
<td>1,500</td>
<td>4,000</td>
</tr>
<tr>
<td>1,550</td>
<td>4,000</td>
</tr>
<tr>
<td>1,600</td>
<td>4,000</td>
</tr>
<tr>
<td>1,650</td>
<td>4,000</td>
</tr>
<tr>
<td>1,700</td>
<td>4,000</td>
</tr>
<tr>
<td>1,750</td>
<td>4,000</td>
</tr>
<tr>
<td>1,800</td>
<td>4,000</td>
</tr>
<tr>
<td>1,850</td>
<td>4,000</td>
</tr>
<tr>
<td>1,900</td>
<td>4,000</td>
</tr>
<tr>
<td>1,950</td>
<td>4,000</td>
</tr>
<tr>
<td>2,000</td>
<td>4,000</td>
</tr>
<tr>
<td>2,050</td>
<td>4,000</td>
</tr>
</tbody>
</table>

Mr. Cockburn, in his Treatise on the Deluge, has made several objections to the principles upon which the above table is calculated, for which we must refer to the author's own account. This author has computed two tables, exhibiting the increase of mankind in the Antediluvian world; the first on the supposition of their doubling themselves in 50 years, and the other in 40 years, and both beginning at the year 500, when there could not be fewer than 120 married or marriageable persons descended from Adam and Eve.
The author, allowing for all obstructions and deficiencies in the course of nature, and for all casualties and accidents, reduces the former number to one-half, viz. to 27,457,795,694,400, that is, 27 billions, or millions of millions, four hundred and eighty-six thousand, seven hundred and ninety millions, six hundred and ninety-four thousand, and four hundred. This he supposes to be the whole number of those who were born into the world before the deluge, or during an interval which he rates at 2256 years. He then allows for those who died before the deluge, and on this account reduces the above number again to one-half, and rates the whole number of mankind alive upon the earth at the time of the deluge to have been no more than 13,743,893,147,200, that is, 13 billions, or millions of millions, seven hundred and forty-three thousand eight hundred and ninety-five millions, three hundred and forty-seven thousand and two hundred; a number far exceeding that of the present inhabitants of the whole earth. The first of the above tables is brought down no lower than to the year 2050, and the second to the year 2022, though there remain by the first 256, and by the second 236 years to the flood; the reason of which is, that in the last 200 years of the world, mankind would not increase in any measurable way to what they had done in the preceding years, though regularly the increase should have been much greater; because violence was then great in the earth, and thousands, yea millions, might have been cut off by untimely deaths; for which cause the duration of the world was determined 120 years before the flood came.

For the longevity of the Antediluvians, and the probable causes of it, see Longevity.

It has been a question much debated, whether or not flesh was permitted to be eaten before the deluge. By the permission given expressly to Noah for that purpose, after the flood, and God's allowing vegetables only for food to man, as well as beast, at the creation, one would imagine it was not lawful before; yet others have supposed, that it was included in the general grant of dominion given by God to Adam over the animal creation; and the distinction of beasts into clean and unclean, which was well known before the flood, is alleged as a strong argument on this side, and which it is not easy to answer. On the other hand it is urged, that if flesh were eaten before the flood, it does not appear that there was any occasion to renew this grant after it, which grant, specifying distinctly animal food, contradistinguished from vegetable, respected not Adam only, but all his posterity. It is farther urged, that the distinction between clean and unclean, respected animals offered in sacrifice in the Antediluvian world; as appears from this circumstance, that upon the grant of animal food to him and his descendants, which was posterior in time to the sacrifice, there is not the least mention of any distinction between clean and unclean with respect to food, but the contrary. The distinction of clean and unclean with regard to food, was introduced by the law of Moses, and differed from that of sacrifices; as there were several creatures clean for food which were not to be offered in sacrifice. Others contend, that if it be alleged that this distinction was used propertly, it is a mere subterfuge; and to supposing it made solely to distinguish what was lawful or unlawful to be sacrificed, and not what might or might not be eaten, is little better; it being the custom to offer to God such fruits and animals as were fit for food and sufficiency, and not such as were of no use or benefit to mankind in this respect. Shuckford's Connexion, &c. vol. i. book i. p. 1—57. Anc. Un. Hist. vol. i. p. 21—72.

ANTEJURAMENTUM, from ante, before, and jura-mentum, oaths, or Præjuramentum, by our ancestors also called jura mentum callumae, in Law, an oath by which both the accuser and the accused were anciently obliged to make before any trial or perjury. The accuser was to swear that he would prosecute the criminal; and the accuser was to make oath on the very day that he was to undergo the ordeal, &c. that he was innocent of the fact of which he was charged. If the accuser failed, the criminal was discharged; if the accused, he was under the obligation to be guilty, and was not to be admitted to purge himself by the ordeal.

ANTEJUSTINIANEAN, an appellation sometimes given to the ancient Roman law, as it stood before the time of the emperor Julian.

Tribonian has been often condemned for suppressing the writings of the Antejustinian lawyers. Schulting, a celebrated professor at Leyden, has a dissertation on the equity of this censure. Fabricius gives a catalogue of the ancient Antejustinian lawyers. Schulting has published a collection of the Antejustinian writers.

ANTELMII, in Ancient Geography, a town of Asia, in Armenia.

ANTELIUS, or ANTHELII, in Ancient Writers, denotes an idol placed over the doors of houses, supposing to have the guardianship, or protection of them.

The word is originally antelvion, q. d. against the sun, as being expos'd to it.

ANTELMII, Joseph, in Biography, a French writer of ecclesiastical history, was a canon of Frejus, in Provence, in the 17th century. He published, in 1680, a Latin "Discertation, Historical, Chronological, and Critical, on the church of Frejus." He also wrote a critical inquiry concerning the author of the creed, commonly called Athanasius's, with other tracts, amusing with curious research. He died, a victim to immediate flux, at the age of 49, in the year 1697. Now, Dict. Hist.

ANTELOPE, Antilope, in Zoology, a genus of the Manulidae Pecora, in the Linnean family by Gmelin; the characters of which are, that it has concave horns, turned upwards and round, annulated, i. e. surrounded with prominent rings, or spiral and permanent. The lower jaw has eight broad fore-teeth; the upper jaw none; and there are no teeth in either. To these characters Mr. Pennant adds, that the inside of the ears is marked longways with three feathered lines of hair, and that the limbs are of a light and elegant form. The antelope forms an intermediate genus between the deer and the goat; though arranged with the latter by Linnaeus, in his former editions, and by several other naturalists: but Gmelin, in imitation of Pennant, Erxleben,
and Dallais, has referred them to a distinct genus. In the form of their bodies they agree with deer, and in the texture of their horns, which have a curve in them, they resemble the goats; they have all gall-bladders, distinct lacrimal, and many, or little, under the eyes; a plate of the skin divided into several cells in the groins; brushes of hair on the knees, and beautiful black eyes. In general their flesh is excellent, as they feed on the tender shoots of trees, though some have a rank herbage or musky flavour, which probably results from the qualities of the plants on which they feed. None of the numerous species of this genus are found in America; they are mostly confined to Asia and Africa, inhabiting the hottest regions of the Old World, or the temperate zones near the Tropics. None of them, except the chamois and farga, are found in Europe. They chiefly inhabit hilly countries, though some in the plains; and some species form herds of two or three thousand, while others keep in small troops of five or fix. These animals are elegantly formed, active,riefles, timid, shy, and sufficiently fast, running with rapid bounds, and springing or leaping with surprising elocution; they frequently stop for a moment in the midst of their course to gaze at their pursuers, and then resume their flight. The faults of these animals is a favourite diversion among the colonists; and the accounts that are given of it supply ample proofs of the swiftness of the antelopes of the tribe. The greyhound, the sleetest of dogs, is usually outrun by them; and the sportsman is obliged to have recourse to the aid of the falcon, which is trained to the work, for feigning on the animal, and impeding its motion, that the dogs may thus have an opportunity of overtaking it. In India, and Peria, a fort of leopard is made use of in the chase; and this animal takes its prey not by swiftness of foot, but by its astounding springs, which are similar to those of the antelope; and yet the leopard should fail in its first attempt, the game escapes. The swiftness of this animal has been proverbial in the country which it inhabited from the earliest times: the speed of Ahabib (2 Sam. ii. 18.) is beautifully compared to that of tzebi, which Shaw, in his Travels, translates antelope, and not roe, as it is in our text; and the Gadites were said to be as swift as the roes upon the mountains. We may add, that the disciple restored to life at Joppa was supposed to have been called Tabitha, i.e. Dorcas, or the Antelope, from the beauty of her eyes; and it is still a comparison in the east; so that aine el cazel or "You have eyes of an antelope," is used as the greatest compliment that can be paid to a fine woman. Authors enumerate 20 species. 1. Antelope lycellus, blue antelope, with recurved, roundish, and annulated horns, and of a bluish colour. This is the blue-bock of Kolben, duch-chamois of Journal Histoire, and blue antelope of Pennant. It inhabits the country to the north of the Cape of Good Hope; is larger than the fallow deer or buck; its colour, when alive, is a fine blue; of a velvety appearance, but when dead changes to a bluish grey, with a mixture of white; beneath each eye is a large white mark, and the belly is white. This species, according to Pennant, from the form of the horns, which are sharp-pointed, taper, and arcuated, bending backwards, and marked with 20 prominent rings; and also from the length of the hair, seems to connect the goat and antelope kinds. 2. A. Lervius, lervee, with wrinkled horns, bent backwards, dainty in the middle, and approaching each other at the base and points, having a remarkable tuft of hair on the nape of the neck, and of a reddish colour. This is the antelope kob of Erxleben; the kob or little brown cow of Buffon; the fish-tall or lervice of Shaw's Travels; and the Gambian antelope of Pennant. It inhabits Africa, chiefly about the rivers Gambi and Senegal; it is about the size of the fallow-deer, and is remarkable for the tuft of hair on the nape of the neck, and for having long brushes of hair on the knees of the forelegs. The horns are surrounded with eight or nine rings. 3. A. Rupicapra, chamois; see Chamois. 4. A. Duana; see Nanguiw. 5. A. Reindeer; see Nagor. 6. A. Tragacannah; see Biegel and Tragacambus. 7. A. Piola; see Nylghau. 8. A. Saiga; see Saiga. 9. A. Gutturosa; see Tysian. 12. A. Sigutyrus, Perian antelope, with horns bent in form of a lyre; the upper parts of the body of a brownish ash colour, the under parts pure white, and a yellowish white stripe along each side. It inhabits Peru between the Caspian and Euxine seas. In size and habit it resembles the roe, lives in large flocks, and builbully chiefly on the centemata panion; the horns are above 13 inches long, and smooth at the points; the throat has at the forepart a protuberance, and the knees are furnished with brushes. The female brings forth in May. The flesh is reckoned very good. 11. A. Paphs; D. of Cassias; cercisopra of Houttyn, Linn. ed. Blye; and suggeleed, not without hesitation, by Gmelin to be the koba of Buffon, and mountain antelope of Ruffel's Allepo; klipfspringer or spring-look of Sparmann; white-faced antelope of Pennant, with the horns bent like a lyre; the general colour a hoary-red, and a blood-red or bright bay neck, a deep red band along the fides, white butts, and a white face. This species is about five feet four inches long, and three feet high at the shoulders; inhabits the countries to the north of the Cape of Good Hope, runs swiftly, bounding from rock to rock, is caught with difficulty, and its flesh is much esteemed. The horns bend outwards in the middle, and approach at the points; those of the males have each fix or seven rings on the lower part, and those of the females have no rings. 12. A. Satanis, jumper antelope, with slender horns, twice contorted, and annulated half way, the general colour a pale brown, the chest, belly, hindmost of the limbs, buttocks, and half way up the back are white, and a broad crescent coloured band along the fides. This animal, if it be different from the preceding species, with which it agrees in the form of the horns and disposition of the dark-coloured bands, inhabits the Cape of Good Hope. It is rather less than a roebuck; and migrates annually from the interior parts of the country, in small herds; continues near the Cape for two or three months, and then retreats towards the north in herds of many thousands. Herds of many hundred thousand periodically migrate, in seven or eight years, from the north, probably compelled to leave their haunts in the Terra de Natal by the excessive drought of that region, and spreading over the whole country of Cafraria, which they desolate, without leaving a blade of grass. In their migrations, they are attended by lions, hyenas, and other wild beasts, to which they afford a prey. The Hotenotis call them the lions' flocks of sheep. Their flesh is excellent; and with other antelopes, they furnish the venison of the Cape. From their prodigious bounds, they are denominated spring-bocks; and when alarmed, they have the power of expanding the white space about the tail into a circular form, which assumes its linear shape when the animal is tranquil. Pennant. Maffnon in Phil. Trans. vol. lxxvi. p. 310. 13. A. Dorcas; see Dorcas. 14. A. Kervella; see Kervel. 15. A. Coronna; see Corine. 16. A. Dubalis, the Cervine Antelope of Pennant; which see. 17. A. Kafa; see Kafa. 18. A. Guu; see Guu. 19. A. Oryx; see Pasan. 20. A. Oeotragus, African antelope, with very frighted, tapering, and sharp-pointed horns, slightly wrinkled at the bases. It inhabits Africa; has a reddish head, the upper parts of the body greenish-yellow, and the under parts of a whitish ash-colour; the tail is very short.
short. 21. A. Gazella, capra bezoardica; or bezoar goat of Syr. Nat. ed. 2.; Hircus bezoardicus of Briffon, &c.; animal bezoardicum of Ray; animal ignotum of Gencer; gazella of Belon and Prosper Alpinus; algael of Pennant and Buffon, with very long, wrinkled, flender, upright, tapering, and sharp pointed horns, which are slightly bent forwards at the ends. It inhabits India, Persia, Egypt, and Ethiopia; runs swiftly up hill, but slowly on plain ground; is gregarious, and is easily tamed; the general colour of the fur is red, with a white breast and belly: the real oriental bezoar, of a greenish and bluish colour, and when recent, of a very powerful aromatic odour, is frequently found in the fourth stomach of this species, chiefly in that of males and full grown animals, and more rarely in the stomachs of females or younger individuals. 22. A. Leucoryx; see Leucoryx. 23. A. Orcus, Indian or elk antelope; see Coudou. 24. A. Scripta, or harnessed antelope; see Guib. 25. A. Grimmia, or Guinean antelope; see Grimm. 26. A. Pygmea, or royal antelope; see Guib. 27. A. Sylvestica, wood antelope, wood goat, or boch-bock of Sparrman; with horns smooth, somewhat spirally twisted, annulated at the bases, and marked with several longitudinal ribs, the ends being taper and sharp pointed. It inhabits chiefly the woods near the Cape of Good Hope, and lives in pairs. It is about three feet high, the upper parts of the body are brown, the forehead white, two white spots on each cheek, a large white spot under the throat, and another at the bottom of the neck; the breast and hinder part of the belly are white, and there are several white spots on the thighs and flanks; the tail is very short, and a short mane runs along the neck and ridge of the back; the whole fur is longish and coarse. The female has no horns. 28. A. Strepeceros, or striped antelope; see Coudou. 29. A. Cervicapra, Indian, common, or brown antelope; see Lidsee.

Professor Pallas, in his travels through different provinces of Russia and northern Asia, has described the method of hunting the antelope, which is the principal amusement of the Tungus, who inhabit the heaths of Daouria beyond the lake Baikal. They choose for this purpose the level and open tracks, situated near a mountain, a river, or a forest. In autumn, at which season their horaces are most vigorous, they form companies of 150 to 200 hunters, all on horseback, attended by led horses. Each has a trained dog; and they are armed with bows and arrows. This chase commonly lasts several days. When arrived at the rendezvous, they send before three or four sharp sighted huntsmen to get a view of the game from the heights or mountains; who, flop to wait for their companions as soon as they perceive the antelopes. When the troop comes in sight, the scouts make signals to them, or by some evolutions of their horaces signify the place in which the antelopes feed, and the course that must be taken in order to come up with them. The troop then breaks into several divisions, and the hunters separate to the distance of 60 or 80 fathoms from each other, in order to form a great ring. Those on the wings advance towards the paturage of the herd, and endeavour to conceal themselves behind the heights till the animals are surrounded: the ring then closes. When the antelopes, at the approach of the hunters, attempt to escape, the men rush on them, chafe them from one party to another, terrifying them with their shouts and the whistling of their arrows, which, for that purpose, are furnished with a button of bone, perforated beneath the head. In this manner they kill all that they can reach. This chase is more successful when the scene of it lies near a river or a mountainous forest, as the antelopes or beast goats never take to the water, though long and furiously harassed, but rather strive to escape by sudden and valiant runs through the troops of their pursuers. They are almost equally ill of fists. They are no sooner hunted into a wood, than they are bewitched among the trees as not to be able to make a hundred paces, but run their heads against every tree, and soon fall breathless. Pallas, Travels, tom. i. p. 402. tom. ii. p. 204.

ANTELUCAN, from ante and lux, light, in Ecclesiastical Writers, is applied to things done in the night, or before day. We find frequent mention of the antelucan assemblies, catus antelucanic, of the ancient Christians in times of persecution for religious worship.

ANTELUDIA, from ante, and ludus, game, in Antiquity, a day of show or parade preceding the circuses, wherein the preparations made for those solemnities were exposed in great form and pomp.

ANTEMETICA, in the Materia Medica, denote medicines suited to cure a preternatural vomiting.

ANTENNA, in Ancient Geography, a town of Italy to the north or north-east of Rome. Although it was built in the territory of the Sabines, it was founded by a colony from Alba, and comprised in the division called Ancient Latium. According to Varro, its name, derived from ante annum, denoted its position, which Cluver and M. d'Anville assign at the confines of the Anio and Tiber. Its inhabitants were called Antennates; and in the fourth year of Rome, they contended with the Romans, and were totally vanquished by them, and their city was destroyed. They afterwards became citizens of Rome.

ANTENURAL, from ante, and natus, born, in Middle Age Writers, denotes a kind of outer wall environing the other walls and works of a place, and preventing the too near access of the enemy to them.

This is also called by Ildoro, promurale, as being pro munitione muris, the defence of the wall.

In some writers we find it denominated antepedoralis muris, in other ambits.

ANTENURAL is also used to denote any work with the rampart or wall of the place.

In this scene, antenural amounts to the same with what we otherwise call Outwork.

ANTENATUS, from ante, and natus, born, is used, in Ecclesiastical Writers, for the vehicle or entrance of the presbyterium, or Eema.

ANTENATUS, from ante, and natus, born, is used in some Law Writers, for the first-born, or eldest son, answering to what we call aijue.

Antenatus, is also sometimes used for a son, the issue of a former marriage. In which scene antenatus amounts to the same with privignum.

ANTENATI, in the modern English History, is chiefly understood of the subjects of Scotland, born before king James the First's accession to the English crown, and alive after it. In relation to these, those who were born after the accession were denominated POSTNATI. The antenati were considered as aliens in England, whereas the postnati claimed the privilege of natural subjects.

ANTENCLEMA, in Oraflory, is where is the whole defence of the person accused turns on criminating the accuser. Such is the defence of Orelles, or the oration for Milo, Oecidus fals fed latro. Exspectus red raptor. See RECRIMINATION.

ANTENICENE, in Ecclesiastical Writers, denotes a thing or person prior to the first council of Nice.

We say the antenicene faith, antenicene creeds, antenicene fathers.

ANTENNÆ, in Entomology, are those delicate moveable horns with which the anterior part of the heads of insects are invariably furnished. These are peculiar to this order of beings, and are easily distinguished from the tenta-
cule of vernes, in being crenulaceous; and from the palpi or antennae, by their situation being nearer the mouth, though much shorter in number, as natural; for early imagined, for they are not mentioned as such until the antenna (Fundamenta Entomologiae). The palpi are usually four in number, as Lepidoptera; but in most lepidoptera insects, when accurately measured, only amount to two; and the same may be observed of the libellula, phalangie, and several others; while, on the contrary, in the cancer, sepsularis, allacis, gomphus, and some other genera, the number of them is six. Fabricius. The antenna in all insects, or at least with the exception of a few of the aperturals kinds that have four, and some six, rarely exceed two. Both the antenna and palpi are of the utmost consequence in the systematic arrangement of insects, as will be noticed hereafter.

For the want of a more appropriate term in the English language for the antenna of insects, they are sometimes called the horns, and sometimes the feelers; the latter of which is by no means applicable, since it confounds them with the palpi, which are the true feelers. Of the purposes for which nature has designed the antenna we are ignorant; some have conjectured, that they are the organs of smell or hearing; and others have supposed they are appropriated to a feeling more delicate than our own, and feasible to the least motion or disturbance in the ambient fluid in which they move. In form and size they vary extremely in different insects, and even generally in the two sexes of the same species, as is fully exemplified in the phalaen genus.

Andrew John Blash, a pupil of Linnaeus's and author of the paper in the seventh volume of Linnaeus's Amoenitates Academicae, called Fundamenta Entomologiae, characterizes the different structure of the antenna of insects in the following manner.

Sectae, fascias, are those which gradually taper towards the point, and resemble a bristle.

Filiformes, filiform, such as are of uniform thickness throughout, like a thread.

Moniliformes, moniliform, are filiform like the preceding, but consisting of a series of round knobs, like a necklace of beads.

Clavate, clavate, club-shaped, or increasing gradually from the base to the extremity.

Capitata, capitata, club-shaped like the former, but the last articulation larger than the rest, and forming a kind of capital or head.

Fissilae are capitata, but have the capitulum divided horizontally into three or four laminse or plates, as in the scarabae.

Perfoliatae are likewise capitata, but have the capitulum divided horizontally, and connected by a kind of thread that passes through their centre.

Pectinatae, so called from their resemblance to a comb, though they more properly resemble a feather, having usually lateral appendages on both sides, as in phalaenus, &c.

Aristatae, such a have a lateral hair, which is either naked or furnished with a hair, as in some mufcic, &c.

The terms breviores, longiores, and mediores, are occasionally employed in speaking of the length of the antenna, and of course imply whether they are shorter, longer, or of the same length as the body. See Entomology.

ANTENNATOR, a species of ichneumon that inhabits Cayenne. It is pale yellow, crown, back of the thorax, tail, and tip of the wings black. Fabricius and Gmelin.

the metallic salts, the calees of metals, and some of the vegetable poisons, together with a suitable regimen, are principally relied on. See Epilepsy.

ANTEPOSITION, from ante, and pons, 1 place, a grammatical figure, whereby a word which, by the ordinary rules of syntax, ought to follow another, comes before it. As when, in Latin, the adjective is put before the substantive, the verb before the nominative case, &c.

Anteposition stands opposed to postposition. One case or species of this figure is called by a particular name, antepograph.

ANTEPREDICAMENTS, Antepredicamenta, in Logic, certain previous matters, requisite to a more easy and clear apprehension of the doctrine of predicaments of categories.

Such are definitions of common terms; as equivocals, univocals, &c. See Definition, Division, &c.

They are thus called, because treated by Aristotle, before the predicaments; that the thread of the discourse might not afterwards be interrupted.

ANTEQUERA, in Geography, a well built town of Spain in the kingdom of Grenada, divided into two parts, the higher and the lower. The former is situated upon a hill much above the rest, has a fortifieated castle, and is occupied by the nobility; and the latter is in a fertile plain, watered by a number of streams. It has a collegiate church, four parishes, fourteen convents of monks, and eight of nuns, and about 15,000 inhabitants. The mountain on which part of the town is situated, yields a quantity of salt; and at a small distance is a fountain of water, which is said to cure the gout. In the neighbourhood are also excellent quarries of stone for building. It is 26 miles north-north-west from Malaga, and 54 miles from Grenada. N. lat. 35° 6'. W. long. 4° 10'.

Antequera is also a town of New Spain in America, in the province of Guaxaquia, 50 leagues south-east from Guaxaquia.

ANTERIDES, in the Ancient Architecture, denote buttresses erected to support a wall.

These are sometimes called antes, sometimes crifmas, and by the Greeks giugmata.

Anterides answer to what the modern builders call counterforts and arch buttresses; the Italians barbicans, and ipersoni or spurs.

ANTERIOR, or Anteriour, formed of the preposition ante, before; something before another, chiefly in respect to place. In which sense the term amounts to the same with prior, and stands opposed to posterior.

Anterior Romanus. See the article Ramus.

ANTIERNACHA, Andernach, in Ancient Geography, a town of Gaul, belonging to the Rupeni, and situate at the confluence of the Moselle and Rhine. See Andernach.

ANTEROS, in Mythology, the son of Venus and Mars, one of the two Cupids who were the chief of the number. They are placed at the foot of the Venus of Medici. This is represented with a heavy fallen look, agreeably to the poetical description of him, as the caufe of love's ceasing. The other was called Eros. Ovid. Rem. Amor. V. ver. 549 to 577.

Anterotes, a name given by some of the ancient writers on gems to a species of the amethyst. Some have imagined they meant by it a sort of opal; but Pliny expressly contradicts this, making the anterotes the fifth kind of amethyst in value. Plinius Hist. Nat. lib. xxxviii. ch. 40.

Antes, in Architecture. See Anta.

ANTESIGNANI in the Roman armies, a kind of soldiers posted before the eagles, and other ensigns of the legions, whence their appellation.

The antesignani stand contrading ejected from the column of the standards, who were ranged in the same line with the ensigns; and from the postesignani, who were placed behind them. Cesar and Livy mention the antesignani as the first line, or first body, of heavy armed troops. The velites, who used to skirmish before the army, were also called antesignani.

Antesignani was a denomination given to those inferior officers, called campi doctores, who instructed the troops in their exercises.

ANTESIGNANUS, Petrus, in Biography, an industrious grammarian, was born at Rabalsteins in Languedoc, and flourished in the sixteenth century. He published a Greek grammar, which passed through several editions, and a treatise on universal grammar; but his most esteemed publications were his editions of Terence's comedies, in which he took pains to facilitate the learning of the Latin language. The epistle to this work was dated at Lyons in 1556. His industry also appears in his "Thematicus Verbum" and "Praxis Præceptorum Linguæ Graecæ," annexed to several Greek grammars.

"Let others," says he, "afford the reputation of learning; I honestly and truly own, that I have to the utmost of my power devoted my labours to the useful purpose of forming and filling the minds of boys." Gen. Dict.

Antesimista, a name given by the angurs to those thunderbolts, or birds, which proceeded from the south and passed to the east, and which were thought to afford unfavourable presages. Virgil calls by this name a crow, Eclog. ix. 15, according to Servius:

"Ante omnia cava mons illius ab illico cornix."

Antestari, in Roman Antiquity, denoted to bear witness against any one who refused to make his appearance in the Roman courts of judicature, on the day appointed, and according to the tenor of his bail. The plaintiff finding the defendant after this breach of his engagement, was allowed to carry him into court by force, having first asked any of the perjurors present to bear witness. The person asked to bear witness in this case expressed his consent by turning his right ear, which was instantly taken hold of by the plaintiff, and this was to answer the purpose of a signature. The ear was turned upon this occasion, says Pliny, as being the seat of memory; and therefore the ceremony was a sort of admonition to the party to remember his engagement.

Antestature, in Fortification, a small retrenchment, made of palisadoes, or facks of earth set up in haft, to dispute with the enemy the remainder of a piece of ground part whereof had been already gained.

Antevera, or Anteverta, and Postvera, or Postverta, in Mythology, deities worshipped among the Romans: the first, called after, or Porina, was supposed to know past events, and was invoked to repair injuries that had already occurred; and the second, being acquainted with futurity, was supplicated to prevent evils that might happen.

Antevirgilian Husbandry. See Antivirgilian.

Anthallium, among the Ancients, a root growing in dry places, and about the bignets of the fruit of the medlar; it was dug up for food, and esteemed very pleasant and wholesome.

Anthana,
ANTHANA, or ANTHEMA, in Ancient Geography, was a city of Peloponnesus, and one of the 100 towns of Laconia, according to Stephanus Byz. It is said to have derived its name from Anthe, the son of Neptune, who was killed by Cleomenes, the brother of Leonidas.

ANTHEDON, a town of Bœotia, placed by Paulini, and after him by M. d'Anville, a little to the north of Mount Meffapus, and owing its name to its elevated situation. In the middle of this city was a temple of the Cabiri, and near it the sacred wood of Ceres, and the temple of Proserpine, with her statue in white marble; it had also a temple and statue of Bacchus. The poet Anthes, who composed hymns, was, according to Plinius, a native of this city. Imperial Greek medals were struck here in honour of Carsella.

ANTHODON, of Agrippia, a town of Palaecine, in the country of the Philistines, upon the borders of the sea, to the south-west of Gaza. Herod gave it the second name in honour of Agrippa, his friend, and the favourite of Augustus.

ANTHELA, a town of Messenia, which Homer mentions, and which had been promised to Achilles by Agamemnon. In Stрабo's time it bore the name of Theoria.

ANTHELE, a town or borough of Greece, near the ruins of Thermopylae. According to Herodotus (ib. vii. 176), it was near the river Phaexis, and watered by the Aepus.

ANTHELION, from oint and oint, in Physic, signifies a mock or spurious sun; and denotes a meteor, not very common, of a luminous appearance, somewhat resembling the sun, seen through clouds, bigger, sometimes four or five times, than the solar disk. In its most refulgent state, it is as yellow as the sun: but the lucid tract surrounding it is of a paler yellow or whitish cast, interspersed sometimes with a few reddish or fulvous spots. The most received opinion relative to the formation of this kind of meteor attributes the phenomenon to a multitude of minute icy or snowy particles suspended in the air, and either refracting or reflecting the solar rays in such a manner, as to multiply the image of the sun. But the theory of anthelia, for want of a proper number of observations, seems not yet to be brought to such a degree of satisfaction, as by every lover of physiognomy could be defined. The infinances of them are but rare. See Phil. Trans. vol. lli. Part. i. N° 15. An. 1761. See Halo and Parhelion.

ANTHELIX, in Anatomy, the inner circle of the auricle: thus called from its opposition to the outer circuit, called the helix.

ANTHELMA, Indian pink.

ANTHELMINTICS, in the Materia Medica, medicines good to destroy worms.

The word is compounded of oint and matter, again, and worm, a worm.

There are two principal kinds of worms which infect the human stomach and bowels: the flat or tape worm; and worms of various sizes, which are round, somewhat like earth-worms. The former is called Tænia, the latter Ascaris, lubricous, &c. See Memoirs of Med. Soc. Lond. vol. v.

The presence of worms in the prime viscera generally arises from weak digestion; and therefore the cure of Dyætes and will generally destroy the worms. In particular kinds of worms, however, require particular anthelmintics, which will be found under those heads. See Ascarides, &c.

Two or three grains of calomel, with one of falt of steel, taken in threeg, for two or three mornings, and then a brisk purge of rubarb and jalap, ten or fifteen grains of each, is the best general vermifuge.

ANTHEM, from oint, and oint, a hymn. In our church service, any psalm or portion of scripture, set to florid counterpoint, different from chanting in our cathedrals, and from metrical psalmody in our parish churches, is called an anthem, whether for one, two, three, or more voices. Anthems, in our choral service, are distinguished by the epithets solo, verse, or full anthems. Solo anthems have frequently symphonies or ritornels for particular stops on the organ. In verse-anthems, there are solo parts for voices of different registers or compasses, and different stiles of the choir. A full anthem is in choral chorus, except at the leading off a fugue, or new point of imitation. Anthems for a single voice, in the Romish church, are called motets. At the latter end of the 17th century and beginning of the 18th century, the motets of Baffani, the maker of Corelli, were in great favour in England, as well as Italy. In ecclesiastical history, anthems are styled Antiphons, from oint, contra, and oint, vos, fons. Antiphonal singing implies singing from side to side, alternately, as the psalms are chanted in our cathedrals. St. Ignatius, a disciple of the apostles, according to Socrates the ecclesiastical historian, was the author of this kind of singing in the Greek church, and St. Ambrose introduced it into the Roman.

There is in the Brit. Mus. an admirable collection of solo, verse, and full anthems, and services, compiled by Dr. Tudway, of Cambridge, for the Earl of Oxford, in six huge vols. fol. (N° 747). Dr. Green began to collect our best cathedral music from the time of the reformation, to the middle of the last century; but he dying before any great progress was made in the work, it was carried on with great judgment and spirit by his worthy scholar and successor, Dr. Boyce, and engraved and published, in a correct and splendid manner, in three vols. large fol. 1762, 1768, and 1773. This useful publication has been resumed and carried on since the decease of Dr. Boyce, by Drs. Arnold and Dupuis.

The solo anthems of Purcell, Drs. Crofts, and Green, are elegantly printed, and in choral use in our cathedrals. It is hoped that the solemn and dignified style of the fathers of our church music, Tallis, Bird, and Gibbon, will long be regarded as a model for our services and full anthems, as that of Palestrina continues to be, for the best composers, a capella, in Italy.

Anthems were first introduced into the reformed service of the English church in the beginning of the reign of queen Elizabeth.

ANTHEMIS, in Botany, supposed from oint, flores, having an abundance of flowers, a genus of plants of the chamomile kind. Lin. G. 970. Juffieu 185. Linnaean clas and order, fynבע תורא פוג לנג יפוגל פוג פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל פוגל Погл Погł

Nineteen species of this genus are described, of which five are natives of Britain. 1. A. colta, which bears a very large flower, and the petae or chaff between the florets is rigid and prickly; it is a native of Spain, growing in ploughed fields; annual. 2. A. alitrima, grows three feet in height; leaves pinnatifid, compound, with pointed teeth; it grows wild in
ANT

in the south of Europe; annual. 3. A. maritima, with stems prostrate, branches smooth; leaves pinnate, fleshy, cut into small teeth; calyx and peduncles pubescent; a native of the south of France, and also of Britain. 4. A. tomentosa, with stems a foot high, one flowered, leaves tomentose; the two outer divisions of the corolla longer than the others; a native of the north of Europe. 5. A. missa, with leaves simple, jagged, toothed; a native of France and Italy; annual. 6. A. alpina, with leaves tooth-pinnated, entire, linear; stem villose, one-flowered; florets of the radius lilac, three-toothed, See Jacq. Fl. Aufi. vol. t. 39: a native of Italy; perennial. 7. A. chia, with leaves pinnatifid, jagged, peduncles naked, fulvous; a native of the Levant. S. A. nobilis, with root stalk, stems trailing, hairy; leaves bipinnated, pinnules two or three-cleft, pointed; hairy; flowers solitary; calyx hairy, with broad, thinning, membranaceous edges; florets of the circumference somewhat elliptical, entire, or with two or three teeth, those of the centre yellow: this is the common chamomile; it grows wild in many parts of England, and flowers in July and August. See Woodv. Med. Bot. t. 108. 9. A. arvensis, with stem erect, much branched; leaves pinnatifid, hairy; peduncles tomentose, terminal, one-flowered; disk yellow; florets of the radius white, three-toothed; receptacle conical: it is a common annual weed among corn, and therefore called corn-chamomile; it flowers in June and July. See Eng. Bot. 602. 10. A. austriaca, with stems upright, branched, scarcely a foot high; leaves bipinnate: flowers solitary, disk yellow, radius white; seeds naked: a native of Austria. 11. A. cotula, with stems much branched, smooth; leaves pinnatifid, smooth, of a light green colour; disk of the flower convex, yellow: radial florets white: this, from its ungrateful smell, is called flinking chamomile, or May-weed; it is very common, and flowers in June and July, annual. Curt. Fl. Lond. fac. t. 61. 12. A. pyrethrum, with stem simple, trailing, scarcely a foot high, one-flowered; leaves pinnatifid, segments linear, pointed: florets at the centre yellow, those of the circumference white, and purple on the under side: it is perennial, and flowers in June and July; it is called Spanish chamomile, or petilium of Spain. 13. A. valentina, with stem branched, leaves pubescent, tripinnate, binate-flapped; calyx villosa: a native of Spain. Miller, fig. 73. 14. A. repanda, with leaves simple, alternate, obtuse; flowers terminal, globose: a native of Spain and Portugal. 15. A. trinervia, with stem erect, simple; leaves smooth, coloured; peduncles terminal, one-flowered: a native of South America. 16. A. americana, with leaves triternate, peduncles terminal, longer than the branch: a native of America. 17. A. truncifolia, with stem erect, angular, about a foot and a half high; leaves bipinnatifid, smooth, laciniate pointed; flowers of a bright golden colour; ox-eye chamomile: it is a native of Sweden and Germany, and also of Britain, flowering in July and August. See Flor. Dan. t. 741. 18. A. arabica, with stem upright, proliferous, round, purplish; leaves finely and doubly pinnatifid; one flower terminates the stem; it is large, and of a beautiful golden colour. See Smith, spicil. 20. This handsome annual plant is a native of Arabia. 19. A. odorata, with leaves pinnatifid at the tip, calyx membranaceous: a native of the Cape of Good Hope, where it was discovered by Mr. Mafioa in 1774.

Medicinal Properties. The common chamomile, species 8, and the petilium of Spain, species 12, are both articles of the materia medica, in the London and Edinburgh pharmacopoeias. Both the leaves and flowers of the former have a strong, though not ungrateful smell, and a very bitter nauseous taste; but the latter are preferred, being bitterer, and considerably more aromatic. The flowers readily give out their virtues to water, and also to rectified spirit. They possess the aromatic and tonic qualities usually ascribed to simple bitters, having very little astringency, but a strong, aromatic, penetrating odour, from which they are also judged to be carminative, emmenagogue, anti-rheumatic, and anodyne. They have been successfully employed for the cure of intermittensts, as well as of fevers of the irregular nervous kind, accompanied with visceral obstructions, for which we have the authority of Sir John Pringle. That chamomile flowers have been effectually substituted for Peruvian bark, we have the testimony of several respectable physicians, among whom we may notice Dr. Cullen, who recommends them to be given, combined with an astringent, to prevent their tendency to produce diarrhoea. A watry infusion of these flowers is frequently used for the purpose of exciting vomiting, or for promoting the operation of emetics. Externally they are directed in the decoction pro fomento; they are also ordered in the decoction pro comune. Murray, ap. Med. vol. i. p. 105. Woodv. Med. Bot. vol. ii. p. 105.

From the aromatic and stimulating qualities of the root of the petilium of Spain, there can be no doubt that it might be found an efficacious remedy, and equally valuable as an internal medicine in the many others of this class now constantly prescribed. Its use, however, has been long confined to that of a mallefactor, for on being chewed or long retained in the mouth, it excites a glowing heat, stimulates the excretories of the saliva, and thereby produces a discharge which has been found to relieve tooth-aches and rheumatic affections of the face; in this way too, it is recommended in lepargic complaints, and paralysis of the tongue. Woodv. Med. Bot. vol. ii. p. 287.

ANTHEMIS, or ANTHEMUS. in Ancient Geography, one of the names of the isle of Samos, according to Hity.

ANTHEMIIUS, in Biography, and History, emperor of the west, was a native of Constantinople, and descended from an ancient, illustrious, and wealthy family. His name was derived from his grandfather by the mother's side, Anthemius, prefect of the eph, and the excellent prime minister of Theodosius the younger. Having married Mariana, the only daughter of the emperor Marcian, he was fuscifire advanced to the chief dignities, and had some claim to the empire itself. He was cousin to A. D. 435, and afterwards patrician and general, in which office he gained a victory over the Huns on the banks of the Danube. Being nominated by the emperor Leo I. to terminate the interregnum in the west, Anthemius left Constantinople with a splendid retinue, and entered Rome with universal acclamations, where he was inaugurated A. D. 467. Soon after this event, he married his daughter to Ricimer, the powerful commander of the barbarians. His government was too fecile to prevent Gaul from the invasions of the Visigoths, who defeated a body of British troops sent for by Anthemius to protect his subjects, unused to military operations. In the discord that arose between the emperor and Ricimer, the latter fixed his residence at Milan, and succeeded an independent sovereignty over that part of Italy; and marching with an army of Burgundians and Suevi, brought with him Olybrius, whom he defined for the empire. Anthemius, faithfully supported by the senate and citizens of Rome, refuted a siege of three months; but at length Ricimer took the capital by storm, and discovering Anthemius in his place of concealment, caused him to be mafacred. Anc. Un. Hist. vol. xiv. p. 429—431. Gibbons's Hist. vol. vi. 193, 194, 217, 218.
particularly the church of St. Sophia in Constantinople, who on this occasion formed the division, and directed the operations of 10,000 workmen, whose pay and in pieces of five sestertii was never delayed beyond the evening. An- thennius was also a sculptor, a mathematician, and an experimental philosopher. He is said to have been well imitated an earthquake, as to frighten out of his house one Zenos, a rhetorician, who had offended him. At another time the friends of Zenos, as they sat at table, were dazzled by the intolerable light which flashed in their eyes from the reflecting mirrors of Anthennius. Traces describes the artifice of those burning glasss, which he had read in a mathematical treat- isle of Anthennius, entitled, “Πηλο τοιαύτων Μακρύων.” Of Wonderful Machines: which treatise has been published, translated, and illustrated by M. Dupuy, a scholar and a mathematician. Mem de l'Acad. des Inscriptions, tom. xix. p. 376-451. Gibbon's Hist. vol. vii. p. 111.

ANTHEMUSIA, in Ancient Geography, a town of Asia, in Micopatania, mentioned by Phylus, Strabo, and Tacitus; situate to the south-east of Samosatis, and usually called from Zenogna, and separated by a chain of mountains from Edessa to the north-east. An imperial Greek medal of this city was struck in honour of Caracalla.

ANTHENA, a town of the Argolidce, in Cynuria.

ANTHERA, in Botany, a term used by some authors for the yellow or ruddy globules in the middle of certain flowers, as of lilies, fawon, &c.

Some confine the anther to the yellowish globules in the middle of rosettes. These are held mere alltient than the rest of the plant.

Others apply the name anther to those little tufts or knobs which grow on the tops of the flamina of all other flowers; more usually called filaments.

The anther or apex of the flamen, in the Linnaean system, is a principal part of the male organ of generation in plants, and contains within it a fine powder, called pollens, or farina sexuada, designed for the impregnation of the germen, and which, when come to maturity, it discharges.

ANTHERICUM, said to be derived from Αῖθος, i.e. flower of the hedges. Lin. G. Pl. n. 422. Gertn. 16. Phalangium, Julifin, 52. Clafs, bexandra mo- nagra, natural order of coranaric and of aphodolii of Julifin. Its generic characters are as follows: Calyx none; corolla, petals six, oblong, obtuse, spreading; flami- na, filaments subulate, erect; anther, small, incumbent, four- forked; pistillum, germen obscurely triangular; filum simple, of the length of the flamina; stigma obtuse, tri- angular; carpe ovate, smooth, three-forked, three- celled, three valved; seeds numerous, angular. There are more than thirty species of this genus, many of which are very difficult to ascertain. The only species which is a native of Britain is the A. ferratum, the A. officinalis and calycanthus, being by Dr. Smith now referred to other genera. 1. A. floribundum, with leaves flat, smooth, linear-lanceolate, acute; scape simple, raceme many-flowered, cylindrical, compact; petals spreading; flamina smooth; a native of the Cape of Good Hope, from whence it was sent by Mr. F. Maffon, and introduced into the Royal Garden at Kew, in 1773; it flowers in March and April. 2. A. ferratum, with root perennial, corolling of ob- long curved bulbs; stem or scape erect, smooth, round, commonly one-flowered; radical leaves exceeding in height that of the stem, falcifer, infolded, narrow from the base, those of the stem alternate, short; petals elliptical, equal, nerved, white on the outside, externally reddish; flamina smooth; it grows on high mountains among rocks in several parts of Europe; in Britain it has only been found in Wales, &c. Flor. Annl. 5. t. 28. It flowers in June. 3. A. caprinum, with leaves flat, scape simple, flowers corybolus, filaments woody: a native of the Levant. 4. A. planifolium, with leaves flat, scape and filaments woody; it is a native of Portugal, flowering in April. 5. A. revolutum, curled flowered anthericum, with leaves flat, scape branched, corolla revoluted: it is a native of the Cape of Good Hope; and was first cultivated here by Mr. Miller, in 1731. 6. A. naticum, branching anthericum, with leaves linear, subulate, flat; scape branched, peduncles solitary, corolla flat, pubescent bright; it is a native of Sweden, Switzerland, Affria, the south of France, &c. and was first cultivated in England by Gerard, about the year 1597. 7. A. elatum, tall anthericum, with leaves flat, scape branched; flowers scattered, white: it is a native of the Cape of Good Hope, flowering in August and September. S. A. triflorum, three-flowered anthericum, with leaves channelled, sword-shaped, scape, simple, bracteate remote, three-flowered: it is a native of the Cape of Good Hope, and introduced into the King's Garden at Kew, in 1752, by George Winch, Eqg. 9. A. cauliculatum, channelled anthericum, with leaves rather flabby, hairy, sword-shaped-tri- quetrous, channelled; scape simple: this is also a native of the Cape: it flowers in April. 10. A. luteocordes, triped flowered anthericum, with leaves linear, channelled, smooth, with a cartilageous edge; scape simple: a native of the Cape, flowering in August; it was discovered by Mr. F. Maffon, in 1758. 11. A. thiligo, grais leaved anthericum, with leaves flat; scape perfectly simple; corolla flat; pistillum bending down. Jae. Hort. t. 83. Fl. Dan. t. 616: it is a native of Germany, France, and Denmark; cultivated here, in 1597, by Gerard. 12. A. luteifolium, Saray anthericum, with leaves flat; scape perfectly simple; corolla bell-shaped, white; flamina bending down; the French call this species St. Bruno's lily; it grows wild on the mountains of Swifterland and Savoy. 13. A. falcatum, without leaves; scape four inches high, filiform, spiral, bearing three or four flowers: a native of the Cape. 14. A. ferrugineum, shrubby anthericum, with leaves flabby, columnar; stem shrubby: a native of the Cape; first cultivated in Chelsea garden, in 1752. 15. A. luteocordes, aloe-leaved anthericum, with leaves flabby, subulate, flattish; a native of the Cape; cultivated by Dr. Sherard, in 1732. 16. A. nephrolepis, glaucous-leaved anthericum, with leaves flabby, subulate, semi-columnar, upright, filif; flowers yellow: a native of the Cape; cultivated by Mr. Miller, in 1759. 17. A. assimilis, annual anthericum, with leaves flabby, subulate, columnar: scape subreatened; flowers yellow: a native of the Cape; cultivated by Mr. Miller, in 1748. 18. A. bifolium, hairy-leaved anthericum, with leaves flabby, compressed, rough; flowers white: a native of the Cape, and sent to the King's Garden at Kew, by Mr. F. Maffon, in 1774. The preceding five species have all leaved flowers, but those that follow are sword-shaped. 19. A. cal- ycanthum, see Tojielda. 20. A. officinalis. See NARTHE- CIUM. 21. A. japonicum, with leaves sword-shaped, convolute, smooth; scape branched, angular; flowers racemose, nodding: a native of Japan, China, and Java. 22. A. filiformis, thread-leaved anthericum, with leaves filiform, rather cylindrical, rough; filaments smooth; it is perennial, flowering in April: a native of the Cape, and introduced here by Mr. F. Maffon, in 1774. 23. A. strictifolium. 24. A. mucronatum. 25. A. latifolium. 26. A. candidissimum. 27. A. tricorpus. 28. A. elatum. 29. A. falcatum. 30. A. cortus, 31. A. flavo- bucum. 32. A. ferrugineum. The above ten species are all Cape plants, and mentioned in the Supplementum Plantarum, but unknown in this country. They were all but the last discovered by Thunberg. 33. A. cirratum, with leaves lanceolate, flattish; scape panicked: a native of New Zealand. 34. A.
ANT


*Propagand Culture.* All the species except the sixteenth are perennial, and arc usually propagated by offsets taken during the summer or autumn. Those plants which do not throw out suckers freely, may be propagated by seeds, sown in the spring or autumn, in a warm situation, on a bed of light sandy earth. When the leaves decay, the roots should be broken up and transplanted. If the winter prove severe, they should be defended from the cold by covering the bed with straw, or what is better, old tan, from a hot bed. Thus treated, they will be strong enough to flower in one year, and in autumn may be taken up, and planted in the borders of the flower-garden, where they will live several years, if the roots be well defended from the frost. Some of the species, as the 7th, must be houfed in winter, or placed under a hot-bed frame, which is to be preferred to a common green house. See Martyn's Miller's Diet.

*ANTHERINUS,* in Entomology, a species of *cryptocephalus,* in Gmelin's arrangement. It is black, with two ferruginous bands. This is tenebrio pedicularis of the tenth edition of the Linnean Syllagma Naturalis, and mele antherinus of the twelfth edition of the same work, and the Fauna Suecia. Fabricius places it in his genus lagria, in the Species Infectorum: this insect is very small, lives on flowers, and runs fast.

*ANTHESPORIA,* in Antiquity, a feast celebrated in Sicily, in honour of Proserpine. The word is derived from *anthos,* flower, and *phiw,* I carry, in relation to Pluto's having forced away that goddes when he was gathering flowers in the fields. Yet Felix does not ascribe the feast to Proserpine; but says it was thus called, because ears of corn were carried on this day to the temples. Anthesporia seems to be the same thing with the *floriferium* of the Latin, and answers to the *harvest-home* among us.

Anthesporia were also celebrated in the temple at Argos, in honour of Juno Antheias; according to Faunus, in the Corinthiac.

*ANTHESTHERIA,* was a feast celebrated by the Athenians in honour of Bacchus.

The most natural derivation of the word is from *anthos,* flower, and *phiw,* I carry, to offer garlands of flowers to Bacchus.

Some are of opinion it took its name from the month Anthesteria, in which it was celebrated. Others pretend, that this was not the name of any particular feast, but that all the feasts of Bacchus were called anthesteria.

The anthesteria lasted three days, the eleventh, twelfth, and thirteenth of the month; each of which days had a name suited to the proper office of the day, and during which the masters served their slaves at table. The first day of the feast was called *synophyse,* i.e. opening the vessels, because on this day they tapped the vessels, and tasted the wine. The second day they called *xopoi, congii,* the name of a measure, containing the weight of a cut ten pounds; on this day they drank the wine prepared the day before. The third day they called *xopoi, kettles:* on this day they boiled all sorts of pulse in kettles; which, however, they were not allowed to taste, as being all to be offered to Mercury.

*ANTHESTERION,* in Ancient Chronology, the sixth month of the Athenian year. It contained twenty-nine days, and answered to the latter part of our November and beginning of December. Nepos, a commentator on the *Tale of Ovid,* says, that it answered to the end of February and beginning of March. The Macedonians called it *Defon or Deson.* In this month the Athenians and other people of Greece celebrated feasts in honour of the dead.

It had its name from the festival Anthestheria kept in it.

ANTHIAS, in Ichthyology, a species of *labrus,* very concisely described by Gmelin, after Arcted; as being entirely reddish, "totus rubescens." This is Anthia of Rondel, and according to Catesby, found in Carolina; it is also said to inhabit the south of Europe, and to have the gill covers serrated. Some have supposed this fish to be a perch.

ANTHISTIRIA (Anthistira, floralis, an Athenian festival observed in honour of Bacchus), in Botany, an exotic plant, of a graps-like appearance, belonging to the class *polygama monoeica,* and natural order, *gramina.* The essential generic character is, that the calyx is cleft at the base into four equal divisions or valves. *Anthistira ciliata* is the only species of the genus hitherto discovered.

ANTHUS, FLOWERS, in Mythology, a surname given to Bacchus, at Athens, and also Patras in Achaia; because the statues of this god were covered with a robe charged with flowers.

ANTHOCEROS, a small cryptogamous plant, of the order *alga.* Lin. Gen. 1201. In the *male* flower the calyx is fiddle, cylindrical, entire; anther very long, subulate, two-valved; in the female, the calyx is cut into four divisions, and contains three seeds. 1. A *punatus,* with the fronds undivided, indented, dotted: a native of Britain, growing on heaths and moist shady places. 2. A *larvus,* with smooth, undivided, indented fronds. 3. A *multifidus,* with bipinnate linear fronds. See Hedwig's Figures and Flor. Dan. 396.

ANTHOINE, NICOLAS, in Biography, was born at Brien in Lorain, of Roman Catholic parents, and educated in the college at Luxembourg, and also under the Jesuits at Triers and Cologne. Conceiving a dislike to the church of Rome, he embraced the Protestant religion; and such was his zeal in his new profession, that he endeavoured to profeyle his relations. In pursuing his theological studies, he became a convert to Judaism, and solicited the Jews in several cities to admit him among them as a proselyte, but his application was ineffectual. Returning to Geneva, he made an external profession of Christianity, but privately performed his devotions as a Jew. He was at length admitted into the minitry of the reformed church; and appointed by the ynod of Burgundy, to be minister of the church of Divonne in the country of Gex. Here he was instructed, and became infan; but upon the recovery of his understanding, he was committed to prison. After some time, he was brought to his trial; upon which he avowed himself a Jew, and befought God that he might die in the Jewish religion. The result was his condemnation by the council, who, in 1632, sentenced him to be shanged and burnt; and he was executed on the day of his condemnation. His sentence expressed, that "laying aside all fear of God, he was guilty of apostacy and high treason, having opposed the Holy Trinity, denied our Lord and Saviour Jesus Christ, blasphemed against his holy name, renounced his baptism to embrace Judaism and circumcision, and perjured himself, which are great and horrid crimes, &c." Anthoine left several pieces written with his own hand, such as several prayers, that are said to be composd in a strain of great devotion, though he introduces them no mention of Jesus Christ; a small paper, containing eleven philosophical objections against the *Treaty*; a condiction of his faith in twelve articles, which are as follow: viz. that there is only one God, without distinction of persons; that there is
no other way of salvation, without fulfilling the law of Moses— that is, a fulfilling of the law of talitha, and also the direction of clean and unclean meats:— that sacrifices will be reformed, and the temple and city of Jerusalem rebuilt:— that the true Messiah is to come, and that he will be a glorious, holy, and just king, and return the kingdom of Israel:— that there is no imputation of Adam’s sin:— that there is no predestination, by which God has decreed to save some persons and to damn others, but that man shall be rewarded and punished according to their actions:— that no person can make satisfaction for us, but that we sin there is room for repentance:— and that the New Testament is not agreeable to the Old, Gen. Dict.

ANTHOLOGY, a church-book in use among the Greeks. It was called ṿολογιον, q. d. floridum, or a collection of flowers. The anthology is a sort of breviary or masb-book, containing the daily offices addressed to our Saviour, the Virgin, and the principal saints; with other common offices of prophecies, apostles, martyrs, pontiffs, and confessors, according to the Greek rite. See Breviary, Mass, and Office.

ANTHOLOGY, Anthologia, a dictionarie or treatise of flowers, or of beautiful passages from any authors. Thus called from antó, a flower, and λεξικός, a dictionarie; though others choose rather to derive it from antó, a flower, and λέξις, a gathering; and use it to signify a collection of flowers.

Anthology is frequently used for a collection of epigrams of divers Greek poets.

ANTHOLYZA (Ἀνθόλυζα, a flower, and λύζα, madnify), in Botany, Lin. Gen. 38, class triandra monogynia; natural order euface; and irid of Jullian.

Generic Character. Calyx, ephaphe two-valved, alternate, imbricated, permanent; corolla, petal one, gradually dilated, from the tube into a comprized ringent throat; upper lip straight, flender, very long, furnished with two short dividers at the base; under lip shorter, trident; stigma, anthers long, flender, under the upper lip; anther acute; pellitum, germ ellipsoidal; style filiform; stigma trident, capping, reflex; per. capule roundish, threecornered, threecelled, threevalved; seeds many, triangular.

Eff. generic Character. Cor. tubular, irregular, recurved; sep. inferior.

Species. 1. A. ringens, narrow-leaved antholyza, with lips of the corolla divericated, throat comprized; it grows two feet high, producing red flowers cut into five unequal segments, and appearing in June; cultivated by Mr. Miller in 1759. 2. A. platycarpa, plaited-leaved antholyza, with leaves plaited; lip branching bifidate; corolla, ringent, shorter than the stigma; a native of the Cape, and discovered by Thunberg and Maarston. 3. A. eunoria, scarlet-flowered antholyza, with corolla somewhat butterfly-shaped, the two outer lobes of the five-parted lip broader and ascending, Miller, fig. 113, and Bot. Magazine, 343. A native of the Cape and Persia; cultivated by Miller in 1756. 4. A. athtica, broad-leaved antholyza, with corolla incurvate; the two alternate lobes of the five-parted lip spreading, large, lanceolate; its flowers are scarlet, and appear in May and June; cultivated by Mr. Miller in 1759. This and the preceding species very much resemble the gialonius. 5. A. meriana, redflowered antholyza; with corolla funnel-shaped; leaves linear, sword-shaped; the flowers have long tubes, of a copper colour on the outside, but of a deeper red within; appearing in April or May. Bot. Magazine, 418. Cultivated by Miller in 1756. See fig. 276, Miller. 6 A. meriana, dwarf antholyza, with corolla funnel-shaped, leaves linear; the flowers are of a paler red, larger than those of the preceding species. Spec. Bot. Mag. 421. The seeds were brought from the Cape in 1754. Both this and the meriana differ much from all the other species of antholyza, and ought perhaps to constitute another genus. 7. A. heder, with radical leaves siliforn at the base, broad, bluish, arrowed at the top; tube simple, leafy, spike, a foot and a half high; flowers oblong, a little bent, purple above, cut into five unequal lanceolate parts. This, as well as the other six species, are natives of the Cape of Good Hope.

Propagation and Culture. As these are very ornamental plants, much attention has been given to their cultivation. They do not always ripen their seeds in this country, and are therefore frequently propagated by offsets, which their bulbous roots lend forth in great abundance. Miller says, "the roots should be taken from them, for if they are kept out of the ground till the following spring, they will often miscarry, or at least remain a year in the ground before they grow. If the seeds are taken in pots of light earth, and plunged into an old bed of tan, which has lost its heat, and shaded in the middle of the day in hot weather, the seeds will come up the following winter; therefore they must be kept covered with glasses to screen them from cold, otherwise the young plants will be destroyed. These may remain in the pots two years, if the plants are not too close, by which time they will have strength enough to be planted each into a separate small pot filled with light earth. The time for transplanting these roots is in July or August, when their leaves are decayed. In summer, the pots may be placed in the open air, but in winter they must be removed and placed under a hot-bed frame, for they are not very tender; but where any damp air is, it is very apt to occasion a mouldeus upon their leaves. The roots shoot up in autumn, and the flowers begin to appear in May; the seeds ripen in August, and soon after their leaves fall. The shoots may then be taken up, and kept six weeks or two months out of the ground, so that they may be easily transplanted from one country to another at that time." See Martyn's Miller's Dictionary.

ANTHON. in Geography. See VIETTIE D’ANTHON. ANTHONY, Francis, in Biography, the son of — Anthony, goldsmith, who held a lucrative place in the Jewel Officer under queen Elizabeth, was born in London in the year 1550. After passing through the usual steps, he was sent to Cambridge, where he graduated in the year 1574. Having applied himself diligently to the study of medicine, particularly of chemistry, and invented a panacea, which he called Aurum Potabile, he returned to London, and commenced practitioner of physic, but without obtaining a licence from the College. He was therefore summoned before them, and interdicted practising, Goodall says, for incapacity; and on his promising refraction, was committed by them to the Compter-prison. He was, however, soon after released, on his submitting to the college, and paying them a fine of five pounds. Two years after, Dr. Taylor and two other members of the college, accused him of occasioning the death of funery persons, to whom he had given his medicine. Against this charge he defended himself, in 1610, by a work entitled, "Medicina Chymica et vari Potabilis Auri affortior," by no means (Aitkin says) devoid of learning and art, although in the present state of chemistry and medicine, it would be thought deliptious of solidity." This was answered by Dr. Matthew Gwynne, in a tract called "Aurum non Aurum, five adversaria in affortorem Chymie, sed vera Medicina defertorem Fran. Anthonium." It is curious to find this
this writer calling upon the king to prohibit the sale of the medicine, left the banihers of the physician, surgeon, and apothecary should be ruined. This at least showed it possesed considerable efficacy. This produced from the inventor, in 4016, an apology in defence of his medicine, written in English, in which, besides some popular arguments in favour of the idea of an universal medicine, there is a large collection of attested cures. He had now acquired such a degree of popularity, and so many powerful protectors, that the College did not think prudent, it would seem, to prosecute him farther. He is said to have been liberal to the poor, and to have lived hospitably in his house in Bartholomew-cloke, where he died, aged 74, on May 26th, 1632. There is a monument erected to him and his son John, who succeeded him in the sale of his medicine, in the church of Bartholomew-the Great, in London. Charles, his second son, removed to the town of Bedford, where he practised physic with considerable reputation and success.

Anthony, or Antony, St. the first initiatore of the monastic life, was born at Cana, a village of Egypt, in the lower parts of the Thebais, in the year 251 (324, Cave). Some have said, that though born of wealthy parents, he was wholly illiterate; whilst others affirm, that he could read and write in the Coptic, which was his native tongue. At the age of 18, he was left in possession of a large estate, which, under the impulse of a fanatical spirit, he sold, distributing the produce of it among the poor, and devoting himself to religion in a state of solitude and poverty. After a long and painful journey among the tombs, and in a ruined tower, he boldly advanced into the desert, three days' journey to the eastward of the Nile, discovered a lonely spot, which possest the advantages of shade and water, and fixed his last residence on Mount Colzim, near the Red Sea; where an ancient monastery still preserves the name and memory of the saint. Before his settlement at Colzim, and during the perfection of Maximin, in the year 311, he left his solitary retreat, and visited Alexandria, for the purpose of administering consolation to those who were suffering in the Christian cause. During the latter part of his life, in the year 355, he took another journey to this city, at the request of Athanasius and other Catholic prelates, to affirm the faith against the Arians; where he is said to have supported his name with discretion and dignity. Declining to accept an invitation from the emperor Constantine to visit Constantinople, he returned to his cell, and there lived to the advanced age of 105 years. The venerable patriarch beheld the numerous progeny, which had been formed by his example and labours to that kind of monastic seclusion and mortification, which superstition may deem meritorious, but which an enlightened and benevolent philosophy must pronounce absurd and mischievous. The public colonies of monks multiplied with rapid increase on the sands of Libya, upon the rocks of the Thebais, and in the cities of the Nile. To the south of Alexandria, the mountain and adjacent desert of Nitria were peopled by 5000 anchorites; and the traveller may still investigate the ruins of 50 monasteries, which were planted in that barren soil by the disciples of Anthony. But 'what honour can be due to the memory of the fanatic who laid the foundation of an institution, which has alienated millions of human beings from the first duties and the finest enjoyments of society?' Anthony left his cloak to Athanasius, and his hair-cloth to two brethren who were with him at his death. Seven letters, written originally in Egyptian, and translated into Latin, abounding more with pithy than eloquent, with some other pieces, ascribed to this proto-monk, may be found in the 'Bibliotheca Patrum.' Cave's Hist. Lit. vol. i. p. 320. Gibbon's Hist. vol. vi. p. 241, &c.

See Morn.

Anthony, St. of Hainault. The order of St. Anthony in Hainault, was instituted by Albert, duke of Bavaria and count of Hainault, Holland, and Zealand, in 1382, on designing an expedition against the Turks and Moors. The clofn of the order was a collar of gold made like an hermit's girdle; at the centre thereof hung a crutch, and a small bell of gold.

Anthony, St. of Ethiopia. The order of St. Anthony in Ethiopia. After the death of St. Anthony the hermit, who died in 357, many of his disciples remaining near Ethiopia, followed his example and manner of life; and their successors lived in great austerity in the desert, and were called Anchorites till the year 372; when John, emperor of Ethiopia, erected them into a religious order of knighthood, under the title and protection of St. Anthony, patron of his empire. Being thus instituted, they received St. Basil's rule, and lived in monasteries; their habit was black, with a blue Cross Tau. Philip VII. four to the Founder, enlarged their lands and privileges, and added a borodure of gold to the badge of the black cross. In Italy, France, and Spain, there was formerly a fort of monks that had the title of Knights of St. Anthony, which observed the rule of St. Aquilung, and they wore a plain cross like that in Ethiopia; but the principal of these wore a double St. Anthony's cross of blue fatin, the one above the other. Their chief seat was at Vienne in Dauphiné, of which place the General of the Order bore the title of abbot; the monastery being erected, in 1297, in honour of St. Anthony, whole body was translated thither from Conflantinople. The badge of this order was a Cross of azure azure, the base point thereof couped, and the whole edged with gold. The friars of this order came into England in the reign of king Henry III. and had one house at London, and another at Hereford.

It is said that, in some places, these monks assume to themselves a power of giving, as well as removing the ignis facer, or Erysipelas; a power which is usefully employed for keeping the poor people in subjection, and extorting alms.

St. Anthony's Fire. See Erysipelas.

Anthony, St. Island of St. Anthony's, in Geography, the most northerly of all the Cape Verde islands, lying in N. lat. 18°, and divided from St. Vincent by a clear and navigable channel, about two leagues broad. The island stretches from north-east to south-west, and abounds with high mountains, whose tops are constantly covered with snow, and generally hid in the clouds. On the north side is a good road for shipping, and a supply of fresh spring water. The inhabitants are chiefly Negroes, amounting in number to about 5000 under the protection of the Portuguese. The island produces a variety of fruits, oranges, lemons, palms, melons, bananas, pomegranates, and the Iegar-cane. The potatoes and melons are particularly excellent, and much sought after by mariners.

Anthony Cave's Island, an island in the Pacific Ocean. S. lat. 3° 10'. E. long. 152° 50'.

Anthony's Falls, St. lie in the river Mississipi, about ten miles north-west of the mouth of St. Pierre river, which joins the Missipipi from the west, and are situated in N. lat. 44° 50'. They were so named by father Louis Hennipin, who travelled into those parts about the year 1680, and was the first European ever seen there by the natives. The whole river, 1250 yards wide, falls perpendicularly above 30 feet, and forms a very agreeable estuary. The rapids below, in the space of about 500 yards, render the descent apparently greater, when viewed at a distance. In the middle of the falls is a small island, about 40 feet square, in which...
grow a few hemlock and spruce trees. These falls are in
peculiarly situated, that they may be approached without
any intervening hill or precipice; and the scene around
them is uncommonly beautiful. At a little distance below the falls
is a small island, about ½ acre, on which grow a great num-
er of oak trees, all the branches of which are loaded, at the
proper season, with the nests of eagles, where they are secure
from the attack both of man and beast.

Anthony's Kill, a western water of Hudson's river; the
mouth of which is seven miles above that of Mohawk river,
with which it likewise communicates at the end of Long
Lake.

Anthony's Nose, a point of land in the highlands, on
Hudson's river, in the state of New York; from which to
Fort Montgomery on the opposite side, a large Boom and
chain was extended in the late war, at an expense of
70,000. dollars. It was partly destroyed by general Clinton
in 1777. This is also the name of a point of a mountain
on the north bank of Mohawk River, about 30 miles above
Scheneectady. The flag road runs about this point.

ANTHOFIHYLLUM, in Natural History, a species of
Madrepore, found in the Mediterranean. The stalk is
simple and ovate; flar terminal, hemispherical, and concave,
with radiated lamellae, which are thick at the bottom.
Gmelin, Esper, &c.

ANTHOFIHYLLUM, is also a name given by Rumplius to
madrepora ramea of Linnaeus. Vide Anthophyllum fascicul
Rumpf. amb. vi. p. 245.

ANTHORA, in the Materia Medica, a medicinal plant,
of the aconite kind, having yellow flowers, resembling helm-
ets; growing chiefly on the mountains in Switzerland
and Savoy. See ACONITUM.

This is otherwise called anthora, as being reputed an an-
tidote against the thora; sometimes aconitum falsiflorum;
in English, the helmet-flower.

The root, anthora radix, has been chiefly in use. It holds
a place in the catalogues of the Materia Medica, but is not
kept at this time in the shops. It is of a dusky brown without
and whithit within, of a warm bitter taste, and is reputed
a caradice and alexipharmic, much of the same qualities with
contrahernia root; on which account some also denominate
it the German contrahernia, though it now only obtains
a few official compositions.

ANTHORISMNUS, in Rhetorica, denotes a counter de-
definition or description of a thing.

Thus, if a plaintiff urge, that to take any thing away
from another, without his knowledge or consent, is a theft;
this is called esse, or definition. If the defendant reply, that
to take a thing away from another, without his knowledge or
consent, provided it was done with deffign to return it to
him again, is not theft; this is an esse non esse.

ANTHOS, in its original Greek, signifies flower; but
by way of excellency is appropriated to refemine, so as to
express only that plant.

ANTHOSPERMUM (A. scler., and Agra, flower-seed), in
Botany, Linn. Gen. 164. Class, polvagmi, dioecia; natu-
ral order, feliatae; and rubriceae. Jull.

Generic Character. Male. Calyx, perianth one-leaved, co-
ical, quadrifid beyond the middle; divinations ovate-oblong;
revolute, obtuse, corolla none; flamina, filaments four, cap-
illary, erect, the length of the calyx, inserted into the re-
ceptacle; anther two, oblong, four-cornered, erect.

Female. Calyx and corolla as in the male; pistillum, ger-
men inferior, ovate, four-cornered; styli, two, recurved;
 stigmae ample.

Efflo, Generic Character. Calyx four-parted; corolla none;
flamina four; pistillum two; germ, inferior; male and fe-
male in the same, or a distinct plant.

Species. 1. A. rhizophor. amber-tree; it bears male
and hermaphroditic flowers on distinct plants; a beautiful
ever-green shrub, with branch-pollished leaves, which emit
a very fragrant odour on being rubbed between the fingers.
2. A. racemosa, with root peduncled, woody, much branched;
leaves ciliated, narrow, lanceolate; flowers axillary, f. sile.
3. A. berbecum, with leaves fi, pollishd; stem herbaceous.
This has the appearance of a glIMUM. All these species are
natives of the Cape of Good Hope.

Propagation and Culture. All these plants may be easily
propagated by cuttings during the summer months; they
will take root in a border of light earth, provided they are
watered and shaded as the kasim may require; or if these
cuttings are planted in pots, and placed in a moderate hot-
bed, they will take root sooner. Afterwards they should
be taken up, and planted in pots filled with light sandy
earth, and exposed to the open air till October, when they
ought to be removed into the conservatory. See Miller's
Dict. by Motyn.

ANTHOXANTHUM. See RUMEX marinia.

ANTHOXANTHUM (Adox, and lacinia, yellow flower),
Lin. Gen. 42. Class, indigera digita; natural order, gra-
mina, or grasses.

Generic Character. Calyx, glume one-flowered, two-
valved; valves ovate, acuminate, concave, the inner one
larger; corolla, glume one-flowered, two-valved, of the
length of the greater valve in the calyx, each valv e
emitting an awn from the lower part of the back, one of them
jointed; nelly two-leaved, very fleshy, cylindrical; leaflets
subovate, embracing; flamina, filaments two, capillary, very
long; anther oblong, forked at both ends; pistillum, germ-
men oblong; styli two, filiform; stigma fimbria; pericar-
pium, glume of the corolla grows to the seed; feed one,
pointed at both ends.

Efflo, generic Character. Glume two-valved, one-flowered;
glume of the corolla two-valved, acuminate; feed one.

Species. 1. A. odoratum, sweet vernal grasa, with spise ob-
long-ovate; flowers longer than the awn, on short peduncles.

This is an early grass, and grows about a foot high; it may
be easily distinguished from all the other grasses which are
natives of this country, by having only two flamina; its
fragrance is also very remarkable, giving that pungent smell
discovered in new-mown hay. See Eng. Botany, 647. 2. A.
indicum, with spise linear; flowers f. sile, shorter than the
awn; culm, or stem, a foot high, jointed; leaves broad, short,
spice very narrow; a native of the East Indies. 3. A. crin-
atum, with culm high, smooth; panicule long, spike-shaped;
with awns long, spreading, loote: a native of New Zealand.

ANTHOXANTHUM acutatum. See CRYPTIS.

ANTHOXANTHUMpaniculatum. See FESTUCA Spatacea.

ANTIRACIUS, in Natural History, a word used for a
gem by the ancients, but in several different senses; all
which seem evidently to refer to the cat's eye, or afteria kind.

Many of the ancients also have called the HEMATITES, or
blood-stone, by this name, because of its being of the
colour of a burning coal.

ANTIRACOLOITE (of Kirwan), in Mineralogy. See COAL.

ANTHRACOSIS, in Surgery, is a disease affecting the
eye or its appendages, which more commonly bears the
appellation of Anthrax. Carlo, or Carbuncle. This disorder
may, however, be stated in any other external part of the
body; and there is no good reason why its name should be
altered, when it affects the eye. See CARBUNCLE.

ANTHRAX,
ANTHRAX, in the Natural History of the Ancients, was a word used by the most early writers for the subfuscation we now call pit coal, and lithoanthrax. Theophrastus plainly tells us, that the subfuscation strictly and properly called anthrax (for they also knew a gem by the same name, used in a metaphorical sense) was an earthy fosile subfuscation, which was broken in pieces to be used, and kindled well, and burnt almost like wood-coals, and was used by the smiths. See Coal.

ANTHRAX Morio, in Entomology, a name given by Scopoli to the musca morio of Linnaeus. Vide Scop. ent. Carn. 971.

ANTHRAX, in Surgery, a circumfered tumour seated in the common integuments, and ready becoming gangrenous. For a more particular description of this complaint, see Carbuncle, which is synonymous. The distinction which some persons have made between anthrax and carb is not founded in nature.

ANTHRHENUS, in Entomology, a genus of coleopterous insects in Gmelin's arrangement of the Systema Naturae, comprehending seven species, viz. pinnipinnella, feroxphilus, mufcorum verbacis, vagus, glaber, and fucius. The character of this genus is, antennae cuvate; club solid; palpi unequal, filiform; maxilla membraneous, linear, and two-cleft; lip entire.

ANTHRIBUS, a name given by Geoffroy to the Cryptoccephalus Cruceus of Gmelin.

ANTHRISCUS, in Botany. See Chelanthemum and Scandix.

ANTHROMETRICA macchina. See Anthropometrica.

ANTHROPODÆMON, in Ancient Writers, a demon concealed under the figure or appearance of man.

ANTHROPOGLOTTUS, in Natural History, something that has a tongue or speech resembling that of a man. The parrot kind are denominated anthropogolltus, on account of their broad, thick and muscular tongues, by which they are enabled to speak, and to roll their meat from side to side under the edges of their bills.

ANTHROPOGRAPHIA, a description of man; more particularly of the structure of his body, and the parts thereof.

ANTHROPOLÆÆ, in Ecdesiological History, a title given to the Nettarians, on account of their believing Christ to be a mere man, yet paying him the honour of a God.

ANTHROPLATRIA, the paying divine worship or honours to a man. Anthropolatry is suppressed by some to have been the most ancient species of idolatry.

ANTHROPOLITES, in Natural History, a term denoting petrifications of the human body; as those of quadrupeds are called zooliths. See Petrification.

ANTHROPOLOGY, compounded of anthropos, man, and logos, discourse, a discourse or treatise upon man, or human nature; considered as in a found or healthy state.

Anthropology includes the consideration both of the human body and soul, with the laws and effects of their union; as sensation, motion, &c.

It is particularly used, in Theology, for a way of speaking of God after the manner of man; by attributing human parts and passions to him; as eyes, hands, ears, anger, joy, &c. We have frequent instances of anthropology in holy scripture; by which we are only to understand the effect, or the thing which God does, as if he had hands, &c.

ANTHROPOMANCY, compounded of anthropos, man, and mania, divination, a method of divination, performed by inspecting the visera of a person deceased; the emperor Helios halus practised this method of divination. The fame is related by Cedrenus and Theodoret of Julian II.

ANTHROPOLOGY, compounded of anthropos, man, and logos, discourse, a figure, expression, or discourse, whereby some passion is attributed to God, which properly belongs only to man.

Anthropopathy is frequently used promiscuously with anthropology; yet, in strictness, they ought to be distinguished as the genus from the species. Anthropology may be understood of any thing human attributed to God; but anthropo-
anthropophagy, only of human affections, passions, feudations, &c.

ANTHROPOPHAGI, compounded of the Greek ἄνθρωπος, man, and ψυχος, to eat, people who feed on human flesh.

The Cyclops, the Lebykgous, and Scylla, are all represented in Homer as anthropophagi, or man-eaters; and the female phantoms, Circe and the Syrens, full bewitched with a show of pleasure, and then destroyed. This, like the other parts of Homer’s poetry, had a foundation in the manners of the times preceding his own. It was till in many places the age spoken of by Orpheus:

“When men devour’d each other like the beasts,
Gorging on human flesh.”

Some remains of the usage subsisted much longer, even among the most civilized nations, in the practice of offering human sacrifices.

Hillery gives us divers instances of persons driven by excess of hunger to eat their own relations. Others commence anthropophagi out of revenge and hatred; there are many instances of soldiers, who in the heat of battle have been carried to such excesses of rage, as to tear their enemies with their teeth.

The violence of love has sometimes produced the same effect as the excess of hatred. The Lapithas, the gods of their friends and nearest relations to preserve them from storms and putrefaction, thinking they do not only hereby afford them an honourable grave, but even a new life; a kind of revivification in themselves. Artemis did something like this, when she swallowed the ashes of her dead husband, Mausolus. Among the Bithynian Scythians, when a man’s father died, his neighbours brought him several beasts, which they killed, minced, and mixed up with the flesh of the deceased, and made a feast.

Among the Maflagett, when a person grew old, they killed him and ate his flesh; but if the party died of sickness, they buried him, eviscerating him unhappy.

Idolatry and superstition have occasioned the eating more men, than both love and hatred put together. There are few nations but have offered human victims to their deities; and it was an established custom to eat part of the sacrifices they offered.

This practice has prevailed more or less in different parts of the globe, in more modern times. The Caribees used to make as much of their children, in order to fatten and eat them. Garcilasso de la Vega mentions a people in Peru, who were accustomed to fatten and eat the children produced by their female captives, whom they kept as concubines for that purpose; and when the mothers had done breeding, they themselves were killed and eaten. The virtues whereby the Tououpinambos believed they merited Paradise, were revenge, and eating abundance of their enemies. Herrera speaks of great markets in China, that were furnished wholly with human flesh for the better fort of people.

The Jogos, and the subjects of the great Macoco, are said to be anthropophagi. This prince is very powerful, having several kings for his valets; his court is so numerous, that there are two hundred men butchered every day to supply the table; part of this number are criminals, the rest flaves furnished in the nature of tribute. See Ansik.

It appears pretty certain from Dr. Hawkeforworth’s Account of the voyages to the South Seas, that the inhabitants of the island of New Zealand, a country unfurnished with the necessaries of life, eat the bodies of the enemies. It appears also to be very probable, that both the wars and anthropophagia of these savages take their rise, and owe their continuance, to irresistible necessity, and the dreadful alternative of destroying each other by violence, or of perishing by hunger. See vol. iii. p. 447, and sec. and vol. ii. p. 589, &c.

Mr. Mathen, in his account of Sumatra, informs us, that the Battas, a people of that island, are anthropophagi. They do not eat human flesh to satisfy hunger, because other food is wanting, or as a glutinous delicacy, but as a mode of frowning their detestation of crimes by an ignominious punishment, and as an indication of revenge and insult to their enemies. The objects of this favage repulse are the prisoners taken in war, and offenders convicted and condemned for capital crimes. When sentence is pronounced, the unhappy object is tied to a stake; and when mortally wounded by lances thrown at him by the assembled multitude, they rush upon him as in a rage, cut pieces from the body with their knives, dip them in a dish, previously prepared, of salt and lemon-juice, slightly broil them over a fire, and then swallow the morsels with a kind of favave enthusiasm. In some cases, they tear the flesh from the carcass with their mouths.

Some say that they do not eat the bodies of their enemies plain in battle; but though the practice be not general, instances of it occasionally occur.

M. Petit has a learned dissertaion on the nature and manners of the anthropophagi. Among other things, he disputes whether or not the anthropophagi act contrary to nature? The philosophers, Diogenes, Chryfippus, and Zeno, followed by the whole body of Stoics, held it a very reasonable thing for men to eat each other.

According to Sextus Empiricus, the first laws were those made to prevent men from eating each other, as had been done till that time. The Greek writers represent anthropophagy as universal before Orpheus. To shew farther, that anthropophagy is not contrary to nature, a modern author urges, that cats, dogs, rabbits, and other animals feed on each other. Piny, after Arifolfe, affirms, that swans eat each other; and the bees also eat their nymphes, which are their young. The Dutch, in Nova Zemfia, have bears devour each other; and the like has been observed of the fift kind: the tibrobe, according to Ovil, are caught with a hook baited with their own flesh. Leondarla Florenciunt, having fed a hog with hog’s flesh, and a dog with dog’s flesh, found a repugnancy in nature to such food; the former lost all its brillures; the latter its hair; and the whole body broke out in blotches.

It may be said, that whether the dead body of an enemy be eaten or buried, is a matter perfectly indifferent; but whatever the practice of eating human flesh may be in itself, it certainly is, relatively, and in its consequences, most purgative. It manifestly tends to eradicate a principle, which is the chief security of human life, and more frequently restrains the hand of the murderer, than the fear of duty, or the dread of punishment. If even this horrid practice originates from hunger, till it must be perpetual from revenge. Death must lose much of its horror among those who are accustomed to eat the dead; and where there is little horror at the sight of death, there must be less repugnancy to murder.

See some farther observations on this subject, equally just and ingenious, by Dr. Havedkeworth, &c.

Some carry their respect to dead bodies to a great length. M. Petit does not think it lawful for anatomists to dissect human bodies in order to learn their structure, except those of condemned criminals, and such as are denied the rites of burial. The Arabs went farther; notwithstanding all their curiosity, and desire to be acquainted with the human structure, they could never be induced to make one dissection; but were contented to borrow all their knowledge of this kind from the Greek physicians.
ANT

Some maintain it impossible, whatever precaution is used, to prevent the ingress of the parts of dead bodies with our food and drink. Add, that if we do not feed on our own species, we feed on plants and animals which derive a great part of their nutriment from us. Whence the impossibility of the resurrection of the same body has been inferred.

ANTHROPHAGIA, the act or habit of eating human flesh.

This is pretended by some to be the effect of a disease, which leads people affected with it to eat every thing alike.

Some choose only to consider it as a species of VICE.

The annals of Milan furnish an extraordinary instance of anthropophagy. A Milanese woman, named Elisabeth, from a depraved appetite, like what women with child, and those whole men are obstructed, frequently experienced, had an insatiable inclination to human flesh, of which she made provision by enticing children into her house, where she killed and salted them; a discovery of which having been made, she was broken on the wheel and burnt in 1519.

ANTHROPOSCOPIA, the art of judging or discovering a man's character, disposition, passions, and inclinations, from the lineaments of his body.

In which sense anthroposophia seems to be somewhat more extenstive than PHYSIONOMY, or NEPTOSCOPY.

Oppo has published an "Anthropophagia, sive judicium hominis de hominebus lineamentis ex variis."

ANTHROPOPHAGIA, the science of the nature of man, and his structure and composition, both internal and external.

In this sense, anthroposophia amounts to much the same with the medical physiology or anatomy.

ANTHOPOTHEIA, in Ancient Writers, denotes the offering of human victuals.

The anthropophagy was a frequent practice among the ancients. Some have imagined that the sacrifice of Abraham was the first instance. Many reasonings and disquisitions have been founded on this supposition; by which the severity of Abraham's trial is thought by some to have been somewhat exaggerated. Human sacrifices were in use among the Gentiles before that time; practised by kings as well as by private persons; nay by entire nations, as the Egyptians, Phenicians, Canaanites, &c.

ANTHUMON, in the Materia Medica of the Ancients, a name given to the epithyrmn, or dodger, growing upon thisium.

ANTHUS, in Ornithology, a name by which Aldrovand and some other authors have called that species of the Genatnta Loxia, called the chelirius or green finch.

ANTHILLA, in Ancient Geography, a town of Egypt, situated, according to Herodotus, in a plain, nearly well of the Canopic branch, and north-well of Naucratis.

ANTHILLUS. See Arearia, Aspalathus, Camphorosa, Cressa, Ebenus, Polycarpus, Polycenium, Salsola, and Teucrium.

ANTHILLIS Valentina. See Frankenia.


Generic Character. Calyx, perianth one-leaved, ovate-oblong, swelling, villose; the mouth five-toothed, unequal, permanent; corolla papilionaceous; banner longer than the wings, the fides reflex, claw the length of the calyx; wings oblong, shorter than the banner; keel compressed, of the length of the wings; filaments, filaments concre, rising; anther simple; pachylium, germen oblong; style simple; stigma obtuse; perianthium, legume roundish, concealed within the calyx, very small, bivalve; seeds one or two.

Species. 1. A. tetraphylla, four-leaved anthyllis or kidney-vetch; with leaves pinnate, with four lobes; flowers lateral: an annual, the spontaneous growth of Spain and Italy; it flowers in the open border in July. Curt. Bot. Mag. 108. 2. A. vulgaris, kidney-vetch, lady's-finger, with leaves pinnate, unequal; head double; root woody, perennial; stems decumbent, hairy; leaves lyrate-pinnate; flowers yellow. There is a variety with red flowers: a common native of Britain, flowering in July and August.

This plant is recommended as an excellent palliative for sheep. Figured in Eng. Bot. 104. and Flor. Dan. 983. 3. A. montana, mountain kidney-vetch, with leaves pinnate, equal; head terminal; flowers oblique; stems four to six inches high; flowers pale, streaked with a deep purple; they appear early, and the seeds ripen in July: a native of the south of Europe. 4. A. cornelina, with leaves pinnate, unequal; head solitary; stem seven or eight inches high; flowers of a pale yellow colour, appearing in May and June: it is a native of Spain, annual. 5. A. totoledes, with leaves three-parted; calyces primatric, facicled, of the length of the legumes, half a foot high; leaves alternate, diurnal; flowers about nine, of a deep sulphur colour: a native of Spain, annual. 6. A. Gerardii, with leaves pinnate, unequal; peduncles lateral, longer than the leaf; heads leafless: grows wild on the ten coast of Provence. 7. A. quinqueflora, with leaves ternate, linear; head five-flowered; it bears yellow flowers: a native of the Cape of Good Hope. 8. A. melleharta, sub-herbaceous; with leaves ternate, stipulate, sword-shaped; flowers in a head, yellow: a native of the Cape. 9. A. limifolia, with leaves ternate, feathery, eniform; flowers in a head: stiles eight feet high. 10. A. barna jovis, with leaves pinnate, equal, tomentose; flowers in a head Miller. t. 41. f. 2. A shrub ten or twelve feet high, bearing yellow flowers, which appear in June: a native of France, Spain, Portugal, &c. 11. A. tetraphylla, with leaves pinnate; floral leaves ternate; a small shrub, bearing minute flowers in pairs: a native of Spain and Portugal. 12. A. quinqueflora, with leaves digitate-pinnate; calyces flabby, vescous; head of five or six flowers, which are yellow: discovered at the Cape of Good Hope by Sparrman. 13. A. pectioides, downy-leaved anthyllis, with leaves ternate, unequal; calyx woolly, linear; a low shrub with yellow flowers, appearing three or four together on the sides of the branches: a native of Spain and the South of France; cultivated by Miller in 1759. 14. A. hermanum, lavender-leaved anthyllis, with leaves ternate, sub-peduncled; calyces naked; a shrub five or six feet high; flowers yellow, in small clusters at the side of the branches: a native of the most southern parts of Europe. 15. A. erinacea, prickly anthyllis, a spinose shrub, with fimple leaves; it somewhat resembles gorse or whin: a native of Spain and Portugal; cultivated by Miller in 1759. 16. A. teregranthoides, with leaves pinnate, equal, tomentose; pectioles spinose; flowers in racemes. It has a thorny item about a span high, and bears purple flowers: a native of Mount Lebanon. 17. A. indica, with leaves pinnate, equal, smooth, racemes oblong, sub-terminating; a large shrub, with white flowers: it is a native of the mountains of Cochinchina.

Propagation and Culture. Most of the herbaceous species may be propagated by seeds, sown either in the autumn or spring in a bed of light earth, and transplanted at a proper age in the place where they are to remain. The thorny species are commonly propagated either by seeds or cuttings; if by seeds, they should be sown in the autumn in pots filled with light earth; and placed under a frame in winter, to protect...
ANT

protect them from frost. The following spring the plants will rise; and when they are strong enough to be removed, they should be each planted in a small pot filled with light earth, and placed in the shade till they have taken new root; after which, they may be put along with other hardy exotic plants, in a sheltered situation, till October, when they must be removed into shelter. See Miller's Gardener's Dict. by Martin.

ANTHYLLOIDES. See Salisola.

ANTHYPNOICA, in the Materia Medica, medicines suited to dispel sleep.

ANTHYPOMICRONIA, in Ancient Writers, an oath taken by a prophet or accuser, declaring that the absence of the party accused is not for any just cause, and therefore demanding that judgment may no longer be delayed on that account.

ANTHYPOPHORA, in Rhetoric, a figure whereby we covertly obviate a reductio or objection.

In this sense anthypophora stands opposed to hypophora, e. gr. if the hypophora be, grammar is very difficult to obtain; the anthypophora may be, grammar is indeed a little difficult to obtain, but then its use is infinite.

ANTI, Anti, is a preposition used in composition with several words in Greek, Latin, English, &c. in different senses. In English, it sometimes signifies before; as in antichamber, a place before the chamber. In which case it has the same meaning with the Latin ante, before.

Sometimes, again, it signifies contrary, or opposite; and is then derived from anti, contra, against. In this latter sense, the word makes part of the name of various medicines, to denote some peculiar or specific virtue in them against certain diseases: such, e. gr. are antivenereals, anticothletics, antinephritics, &c.

The preposition is frequently, however, omitted on these occasions, without any alteration of the sense; as in nephritics, arithmetics, algebraics, &c.

ANTI, in Matters of Literature, is a title given to divers pieces written by way of answer to others, whose names are usually annexed to the anti.

See the Anti of M. Baillot; and the Anti-Baillet of M. Menage; there are also Anti-Menagiana, &c. Caesar the Dictator wrote two books by way of answer to what had been objected to him by Cato, which he called Anti-Catores; those are mentioned by Juvenal, Cicero, &c. Vives assures us, he had seen Caesar's Anti-Catoses in an ancient library.

ANTIDES, a term used by some writers for the glanules and kernels, more commonly called torsiles and almonds of the cast.

ANTIDIAPHORISTS, compound of anti, contra,aggiungi, and ἀναθῆκη, in different, opposite to the adiapheres, a name given in the fourteenth century to the rigid Lutherans, who disavowed the episcopal jurisdiction, and many of the church-ceremonies retained by the moderate Lutherans.

ANTIANA, Sericus, in Ancient Geography, a town of Pannonia, placed by M. D'Anville north of Lusatburgium.

ANTIBACCHI, an island of the Red Sea.

ANTIBACCHUS, in the Ancient Poetry, a foot, consisting of three syllables; the two first of which are long, and the third short.

Such are the words candida, sūlitēs, ἐλεός.

It is so called, as being contrary to the bacchius, the first syllable whereof is short, and the two last long. Among the ancients, this foot is also denominated Pulumbacchus, and

ANTICADMIA, a species of mineral cadmia, sometimes also called pseudo-cadmia.

It takes the denomination anticadmia, not as being opposite in quality to the cadmia, but because it is used as a sublimate for it.

ANTICACHECTICA, in the Materia Medica, medicines adapted to the cure of cachexy.

ANTICARDIUM, in Anatomy, &c. that hollow part under the breast, just against the heart, commonly called the pit of the florbach; called also scrobiculus cordis.

The word is compounded of anti, contra, against, and καρδια, heart.

ANTICASIS, in Ancient Geography, a mountain opposite to Mount Calus, at no great distance from Antioch.

ANTICATARRHAL, an epithet given to medicines prescribed for catarrha.

ANTICATEGORIA, in Oratory, denotes a reccrimination or mutual accusation; where the two parties charge each other with the same crime.

Apolloindorus considers the anticategorai as two several caifes or actions.

ANTICAUSOTICS, among Physicians, denote medicines against burning fevers. In this sense, Juncker has given the description of antiausotic syrup.

ANTICHAMBER; see Antechamber.


Generic Character. Calyx, perianthium four-leaved, very much expanded; leaflets lanceolate, acuminate, deciduous; corolla, petals four, obovate, obtuse, the length of the calyx; filaments fertile, erect, shorter than the corolla; anthers roundish; pistillum, green superior, ovate; style cylindrical; stigma obtuse; pericarpium, capsule subulate four
four celled, four-valved; seeds very many, truncated, in four rows.

**Essential generic character.** Cylis four-leaved; petals four; calyx superior, four-celled, four-valved; seeds very numerous. There is only one species of this genus, viz. A. depressus, which is a small procumbent annual, not exceeding three or four inches long, with alternate branches, bearing yellow flowers: it is a native of Arabia.

**ANTICHRESIS,** in the *Civil Law* a covenant or convention, whereby a person borrowing money of another engages or makes over his lands or goods to the creditor, with the use and occupation thereof, for the interest of the money lent. This covenant was allowed by the Romans, among whom usury was prohibited; it was afterwards called mort-gage, to distinguish it from a simple engagement, where the fruits of the ground were not alienated, which was called *vigna.*

**ANTICHIST** (noted in the old.) is a species of *Antichrist,* in general sense, denotes an adversary of Christ, or one who denies that the Messiah is come. In this sense, Jews, infidels, &c. may be said to be *Antichrist.*

The epithet, in the general sense of it, is applicable to any power or person acting in direct opposition to Christ or his doctrine. Its particular meaning is to be collected from those passages of Scripture in which it occurs. Accordingly it may either signify one who assumes the place and office of Christ, or one who maintains a direct enmity and opposition to him. See bishop Hurst's intro. to the study of the Prophecies, vol ii. p. 10.

**Antichrist** is more particularly used for a tyrant who is to reign on earth toward the end of the world, to make the ultimate proof of the elect, and to give a final influence of the divine vengeance, before the last judgment.

The Bible and the fathers all speak of Antichrist as a single man; though they also assure us, that he is to have divers precurors, or fore-runners. Yet many Protestant writers apply to the Roman church, and the pope, who is at the head of it, the several marks and signatures of Antichrist enumerated in the Apocalypse; which would rather imply Antichrist to be a corrupt society, or a long series of perfecuting pontiffs, than a single person: or, rather, a certain power and government, that may be held for many generations, by a number of individuals succeeding one another. The Antichrist mentioned by the apostle John, i Ep. ii. 18, and more particularly described in the book of Revelation, seems evidently to be the same with the Man of sin, &c. characterized by St. Paul in his second Epistle to the Thessalonians, chap. ii. And the whole description literally applies to the excesses of papal power. Had the right of private judgment, says an excellent writer, been always adopted and maintained, Antichrist could never have been; and when that sacred right comes to be universally ascertained, and men follow the voice of their own reason and conscience, Antichrist can be no more.

A late writer (see Kett's History, the Interpreter of Prophecy, vol ii.) after collecting the principal prophecies relating to Antichrist, infers from them, that a power, sometimes represented as the little horn, the man of sin, the Antichrist, the beast, the harlot, the far falling from heaven, the false prophet, the dragon, or as the operation of false teachers, was to be expected to arise in the Christian world to pervert and oppress, and delude the disciples of Christ, corrupt the doctrine of the primitive church, enact new laws, and establish its dominion over the minds of mankind. He then proceeds to shew, from the application of prophecy to history, and to the remarkable train of events that are now (1790) passing in the world, how exactly prophecy, Mahometanism, and infidelity correspond with the character given in Scripture of the power of Antichrist, which was to prevail a certain time for the especial trial and punishment of the corrupted church of Christ. Upon this subject, the different opinions of the Protant and papists, concerning the power of Antichrist, derived from partial views of the subject, are not wholly incompatible with each other.

With respect to the commonly received opinion, that the church of Rome is Antichrist, Mede and Newton, Daubuz and Clarke, Lowman and Hurst, Jurin, Vitringa, and many other members of the protestant churches, who have written upon the subject, concur in maintaining, that the prophecies of Daniel, St. Paul, and St. John, point directly to this church. This was likewise the opinion of the reformers; and it was the prevalent opinion of Christians, in the earliest ages, that Antichrist would appear soon after the fall of the Roman empire. Gregory the Great, in the sixth century, applied the prophecies concerning the beast in the Revelation, the man of sin, and the apostasy from the faith mentioned by St. Paul, to him who should presume to claim the title of universal priest, or universal bishop in the Christian church; and yet his immediate successor, Boniface III. received from the tyrant Phocas the precise title which Gregory had thus confounded. At the synod of Rheims, held in the tenth century, Arnulfus, bishop of Orleans, appealed to the whole council, whether the bishop of Rome was not the Antichrist of the apostles, "sitting in the temple of God;" and perfectly corresponding with the description of him given by St. Paul. In the eleventh century, all the characters of Antichrist seemed to be so united in the person of pope Hildebrand, who took the name of Gregory VII. that Johannes Aventinus, a Roman historian, speaks of it as a subject in which the generality of fair, candid, and ingenious writers agreed, that at that time began the reign of Antichrist. And the Abbe geneves and Waldenses, who may be called the protestants of the twelfth and thirteenth centuries, expressly asserted in their declarations of faith, that the church of Rome was the whore of Babylon. The papists imagine they view in the prophetic picture of Antichrist, the imperial Rome, elated by her victories, exulting in her fertility and her spoils, polluted by idolatry, perfecuting the people of God, and finally falling like the first Babylon; whilst another and holy city, represented by their own communion, filled with the popish votaries of the Christian faith, rises out of its ruins, and the victory of the crofs is completed over the temples of paganism. This scheme has had its able advocates, at the head of whom may be placed Bishop bishop of Meaux, Groton, and Hammond. Some writers have maintained, that Calagula was Antichrist; and others have affirmed the same of Nero. But in order to establish the refutation, they violate the order of time, disregar the opinions of the primitive Christians, and overlook the appropriate descriptions of the apostles.

It is observed by an ingenious writer, that the term "Antichrist" is used by the apostle John, and by no other facetious writer. He first mentioned it in a period which he called "the last hour;" and this, says he, can admit of no tolerable interpretation, except that of the latter period of the Jewish state, just before the destruction of Jerusalem, when the Roman army was actually in Judea. The apostle refers to some prophecy of Antichrist, who should appear before the dissolution of the Jewish state; "Ye have heard," from the gospels of Matthew, Mark, and Luke, "that Jesus, sitting with
with his disciples, of whom I was one; on the mount of Olives, foretold the destruction of Jerusalem, and said, ‘When ye shall see Jerusalem compassed with armies, then shall the generation of Antichrist appear. Antichrist shall arise, to seduce, if it were possible, even the elect.’ Matt. xxiv. Mark, xiii. Luke, xxi. ‘Ye have heard that Antichrist shall come. Even now there are many Antichrists; whereby we know, that it is the last time.’ It was natural to all, who knew the Antichrists were, and by what mark they who had not the gift of discerning spirits, as the apostles had, might know them? To this reasonable inquiry, the apostle answers by saying, ‘Every spirit that confesseth not that Jesus Christ is come in the flesh, is not of God: and this is that spirit of Antichrist, whereof ye have heard that it should come, and even now is already it in the world.’ The name of the apostle seems to be explained by himself in the second epistle, where he again describes an Antichrist. It was a teacher of a doctrine: it was a doctrine concerning Christ; but it was not the doctrine of Christ, which he himself taught. The doctrine of Christ had in it both the Father and the Son: but the doctrine of Antichrist, by not including both, had not God; that is, had not a right notion of the kingdom of God, either as it had been among the Jews, or as it was to be; after the coming of Jesus Christ in the flesh, among both Jews and Gentiles; one delusion of truth, virtue, and social love throughout the world. If he be inquired further, whence came these Antichrists? The apostle says, they were none of us, apostles; they went out from us. This must mean, that Antichristian teachers either withdrew from the apostles, or from the doctrine which they taught. It is too evident, that they did not withdraw from their persons; they followed them; they mixed in their churches; they taught there another gospel; they drew the attention of the people from virtue, and fixed it on ceremonies and secular glory. John calls Antichrist a deceiver; and by deceit this party prevailed. John foretold the whole, and pointed out the place where this iniquity would fix its seat, and for ages try to conceal its ignorance and barbarity under such splendid enigmas of secular glory, as never fail to dazzle, to intoxicate, and to enervate mankind. When Rome boasts of her antiquity, she boasts of a true fact. There is a fine expression of Paul to the Galatians, which teaches readers to consider such Antichrists as abortives, exhibiting a form of unformed Christianity. Robinson’s Hist. of Baptism. p. 625.

After the point had been maturely debated at the council of Gap, held in 1603, a resolution was thus arrived: to infuse an article in the confession of faith, whereby the pope is formally declared to be Antichrist. Pope Clement VIII. was flung to the life with this decision; and even king Henry IV. of France was not a little mortified, to be thus declared, as he said, an imp of Antichrist.

F. Malvenda, a Spaniard, has published a large and learned work, De Antichristo, in thirteen books. In the first he relates all the opinions of the fathers with regard to Antichrist. In the second, he speaks of the time when he shall appear; and shews, that all the fathers, who supposed Antichrist to be near at hand, judged the world also was near its period. In the third, he discourses of his origin and nation; and shews, that he is to be a Jew, of the tribe of Dan; that he founds on the authority of the fathers, on that passage in Genesis xlix. Dan shall be a serpent by the way, &c. on that of Jeremy vii. 16. where it is said, The armist of Dan shall devour the earth; and on the Apocalypse, chap. xii. where St. John, enumerating all the tribes of Israel, makes no mention of that of Dan. In the fourth and fifth books, he treats of the signs of Antichrist. In the sixth, of his reign and wars. In the seventh, of his vices. In the eighth, of his doctrine and miracles. In the ninth, of his persecutions; and, in the roll, of the coming of Enoch and Elias, the conversion of the Jews, the reign of Jesus Christ, and the death of Antichrist, after he had reigned three years and a half.

Hippolytus, and others, held that the devil himself was the true Antichrist; that he was to be incarnate, and make his appearance in human shape before the consummation of things.

How endles are conjectures! Some of the Jews, we are told, actually took Cromwell for Christ, while some others have laboured to prove him Antichrist himself. Paphius affures us he saw a folio Book in the Bodleian library, written on purpose to demonstrate this latter position.

ANTICHRISTIANISM, a state or quality in persons or principles, which denominate them Antichristian or opposite to the kingdom of Christ, and the genius and spirit of religion.

ANTICHRISTS properly denote the followers or worshipers of Antichrist.

ANTICHRISTIANS are more particularly underlaid of those who set up, or believe in a false Christ, or Messiah.

ANTICHTHONES, in Geography, are those people who inhabit countries diametrically opposite to each other.

The word is compound of anti, contra, and αἰών, terra, earth. They are sometimes also called, by Latin writers, antigonia.

In which sense, antichthones amount to much the same with what we more usually call antipodes.

Antichthones is also used, in Ancient Writers, to denote the inhabitants of contrary hemispheres.

In which sense antichthones differs from antocyli, and antipodes.

The ancients considered the earth as divided by the equator into two hemispheres, the northern and southern; and all those who inhabited one of those hemispheres, were reputed antichthones to those of the other.

ANTICYMOLIS, or Anticymeolus, in Ancient Geography, a small island of the Euxine sea, situated opposite and near to the town of Cimolis or Cinolis, on the northern coast of Paphlagonia, to the east of the mouth of the river Egineia.

ANTICIPATION, from ante, before, and capio, I take, the
the act of preventing, or being before-hand with a person or thing; or of doing a thing before the time.

Anticipating a payment, denotes the discharging it before it falls due.

Anticipation is also used, in a logical sense, for a presumption, prejudice, or preconceived opinion.

This is also denominated preconception, presumption, or instinct.

Anticipation, in a medicinal sense, is applied to diseases, wherein some of the symptoms which regularly belong to some future period, appear in the beginning; or the word may be understood of those diseases, which having their accesse and remissions at flaterd hours, gain in point of time, and finish their period sooner than ordinary.

In this sense, anticipation, or anticipated diseases, by the Greeks called προφανές, and opposite to ἀνεπιστέα, which come after the time.

Anticipation, in the Epicurean Philosophy, denotes the first idea, or definition of a thing, without which we can neither name, think, doubt, or even inquire, concerning it.

This is otherwise denominated premonition.

Anticipation, in this sense, makes the second of Epicurus's criterions of truth.

Anticipation is also used by Shaftesbury, in speaking of painting, to denote the expression of some future action, resolution, or the like.

Anticipation. This word, and suspension, in speaking of discords, were first used as technical terms, in Music, we believe, by Ramus; and as they are English words as well as French, they may be usefully adopted.

A sound is said to be anticipated, when a composer wishes a note to be heard before its time, in plain counterpoint. The same passage will explain both these terms. Anticipation in the treble, requires suspension in the base, and vice versa.

There are several kinds of anticipation in music: first, in passing-notes, of which no notice is taken in the base; but this must be done diatonically, not by distant intervals or leaps. Secondly, when the chord is struck on a reff, before the base. Thirdly, in serious and fundamental discords that are to be regularly prepared and resolved, the anticipation in the treble is striking the second before it becomes a third, by the descent of the base. And anticipation in the base, or inferior parts, is when the base rises before the treble falls; as from the eighth to the seventh, or tenth, (octave of the third,) to the ninth. The following are examples, in notation, of the several kinds of anticipation, in treble and base. See Suspension.

See Passing-Notes.
ANTICIPATION, in Rhetoric, a figure otherwise called \textit{prolepsis}. 

ANTICK, in Sculpture and Paintings, denotes a fantastically composed group of figures of different natures, sexes, ages, as men, beasts, birds, flowers, fishes, and even things merely imaginary, which have no existence in the nature of things.

Antick amounts to much the same thing with what the Italians call euripheis, and the French genreoire.

ANTICLIMAX, from \textit{an}, and \textit{clima}, declination, in \textit{Rhetoric}, is a figure, whereby the progress of a dissertation descends from great to little, and this is sometimes reached particularly by such a reversal between the first and second sentences, that the latter may contribute to make the omission appear still more diminutive. Horace affords a striking example.

"Parturient montes, nascetur ridiculus mus."

ANTICERMONIUM, from \textit{ax}, and \textit{nu}, thing, the feminine, in \textit{Anatomy}, denotes the thin, or the prominent part of the \textit{tibia}.

This is otherwise called \textit{aceba}, by the Latins \textit{prima tibia}, or \textit{anterior tibia}, and lands opposed to the \textit{fura}, or calf of the leg, sometimes called \textit{acetosa}.

ANTICOLICA, in the \textit{Materia Medica}, medicines used to cure the colic.

ANTICOLIS, in \textit{Ancient Geography}, a people of interior Lybia, according to Ptolemy.

ANTICONDYLII, a people placed by Stephanus Byz., in Beotta, supposed to be originally Phrygians.

ANTICOSTI, in \textit{Geography}, a barren uninhabited island, in the mouth of the river St. Lawrence. This island has no harbour, but is covered with wood, and excellent cod is found on the shores. N. lat. 45° 10', to 45° 52' W. long. 61° 32', to 63° 4'.

ANTICRAGUS, in \textit{Ancient Geography}, a mountain of Lybia.

ANTICTERIC \textit{Spirits}, in \textit{Pharmacy}, is obtained by distilling one ounce and a half of spirit of turpentine with half a pound of rectified spirit of wine, with a gentle heat; and then separating the oil that flows above in the receiver from the -fromated spirit, which is to be preferred for use. Some have imagined, that this combination of oil of turpentine with ardent spirit will furnish a solvent for biliary calculi. Hence the origin of the name; but though this effect may be produced by a copious application to the calculi in a glass vessel, yet it is not to be expected when the spirit reaches them in the course of the circulation.

ANTICUM, in \textit{Architecture}, a porch before a door; also that part of a temple which is called the outer temple, and lies between the body of the temple and the portico. It is sometimes called \textit{ante}.

ANTICUS, \textit{ferratus minor}. See \textit{Serratus}.

ANTICUS, \textit{pernax}. See \textit{Pernax}.

ANTICUS, \textit{tilaxis}. See \textit{Tilaxis}.

ANTICYRA, now \textit{Aspro Spitta}, in \textit{Ancient Geography}, a city in Phocis, in a small island which joins a peninsula in the gulf of Corinth. Pausanias supposes, that this was the city called by Homer \textit{Cypris}. This place was famous for its hell-bore, and was restored to its perfections for the benefit of this medicine, which was prepared by an excellent recipe; and hence the adage, "\textit{navigat Anticyram}," Hor. Pliny relates, that the philosopher Carneades, and Livius Drusus, tribune of the people, availed themselves of this remedy. Pausanias distinguishes two kinds of hell-bore, and says that it grew among the rocks which encompassed the city. This place was adorned with many statues of gods. Above the port was a temple consecrated to Neptune; and this city had gym-

ATICIAN, in \textit{Sculpture} and \textit{Paintings}, denotes a fantastically composed group of figures of different natures, sexes, ages, as men, beasts, birds, flowers, fishes, and even things merely imaginary, which have no existence in the nature of things.

Antick amounts to much the same thing with what the Italians call euripheis, and the French genreoire.

ANTICLIMAX, from \textit{an}, and \textit{clima}, declination, in \textit{Rhetoric}, is a figure, whereby the progress of a dissertation descends from great to little, and this is sometimes reached particularly by such a reversal between the first and second sentences, that the latter may contribute to make the omission appear still more diminutive. Horace affords a striking example.

"Parturient montes, nascetur ridiculus mus."

ANTICERMONIUM, from \textit{ax}, and \textit{nu}, thing, the feminine, in \textit{Anatomy}, denotes the thin, or the prominent part of the \textit{tibia}.

This is otherwise called \textit{aceba}, by the Latins \textit{prima tibia}, or \textit{anterior tibia}, and lands opposed to the \textit{fura}, or calf of the leg, sometimes called \textit{acetosa}.

ANTICOLICA, in the \textit{Materia Medica}, medicines used to cure the colic.

ANTICOLIS, in \textit{Ancient Geography}, a people of interior Lybia, according to Ptolemy.

ANTICONDYLII, a people placed by Stephanus Byz., in Beotta, supposed to be originally Phrygians.

ANTICOSTI, in \textit{Geography}, a barren uninhabited island, in the mouth of the river St. Lawrence. This island has no harbour, but is covered with wood, and excellent cod is found on the shores. N. lat. 45° 10', to 45° 52' W. long. 61° 32', to 63° 4'.

ANTICRAGUS, in \textit{Ancient Geography}, a mountain of Lybia.

ANTICTERIC \textit{Spirits}, in \textit{Pharmacy}, is obtained by distilling one ounce and a half of spirit of turpentine with half a pound of rectified spirit of wine, with a gentle heat; and then separating the oil that flows above in the receiver from the fermented spirit, which is to be preferred for use. Some have imagined, that this combination of oil of turpentine with ardent spirit will furnish a solvent for biliary calculi. Hence the origin of the name; but though this effect may be produced by a copious application to the calculi in a glass vessel, yet it is not to be expected when the spirit reaches them in the course of the circulation.

ANTICUM, in \textit{Architecture}, a porch before a door; also that part of a temple which is called the outer temple, and lies between the body of the temple and the portico. It is sometimes called \textit{ante}.

ANTICUS, \textit{ferratus minor}. See \textit{Serratus}.

ANTICUS, \textit{pernax}. See \textit{Pernax}.

ANTICUS, \textit{tilaxis}. See \textit{Tilaxis}.

ANTICYRA, now \textit{Aspro Spitta}, in \textit{Ancient Geography}, a city in Phocis, in a small island which joins a peninsula in the gulf of Corinth. Pausanias supposes, that this was the city called by Homer \textit{Cypris}. This place was famous for its hell-bore, and was restored to its perfections for the benefit of this medicine, which was prepared by an excellent recipe; and hence the adage, "\textit{navigat Anticyram}," Hor. Pliny relates, that the philosopher Carneades, and Livius Drusus, tribune of the people, availed themselves of this remedy. Pausanias distinguishes two kinds of hell-bore, and says that it grew among the rocks which encompassed the city. This place was adorned with many statues of gods. Above the port was a temple consecrated to Neptune; and this city had gym-
ANTIDOTICUS, in the *Materia Medica*, medicines suited to cure giddiness.

ANTIDORON, in *Scriptural Writings*, a name given by the Greeks to the consecrated bread, out of which the middle part, marked with a cross, wherein the consecration refires, being taken away by the priest, the remainder is distributed, after mass, to the poor.

On the sides of the antidoron are impressed the words, *Jesu Christus vineit*. The word is formed from *doron*, *doros*, a gift, as being given away *laoco muneros*, or in charity.

Some suppose the antidoron to be distributed in lieu of the sacrament, to such as were prevented from attending in person at the celebration; and thence derive the origin of the word, the eucharist being denominated *doron*, gift, by way of eminence.

ANTIDOSIS, from *ant*, and *dosis*, *I give*, in *Antiquity*, denotes an exchange of elates, practiced by the Greeks on certain occasions with peculiar ceremonies, and first instituted by Solon.

When a person was nominated to an office, the expense of which he was not able to support, he had recourse to the antidosis, that is, he was to leck some other citizen of better substance than himself, who was free from this and other offices; in which case the former was excused. In case the person thus substituted denied himself to be the richest, they were to exchange elates, after this manner: the doors of their houses were clofe flut up and sealed, that nothing might be conveyed away; then both took an oath to make a faithful discovery of all their effects, except what lay in the silver mines, which by the law was excused from all imposits; accordingly, within three days, a full discovery and exchange of elates were made. Potter, Archael. lib. i. cap. 46.

ANTIDOTARY is used by some writers for what we more usually call a dispensatory.

We have *antidotarios* extant of several authors, as those of Nicobrus, Meus, Myrephus, Rhodius, &c.

ANTIDOTE, a remedy taken either to prevent or cure some contagious, malignant, or other dangerous disease.

The word is borrowed from *ant*, again, and *idos*, *I give*, as being something given against poison, either by way of cure or preventive.

Antidote, is also used to signify a medicine taken to prevent the ill effects of some other; for instance, poison.

In which sense the word has the same signification with alchymic, alexiterial, and counterpoison.

The Indian physic confuits much in the use of antides, viz. the root *mannog*, and the bitter *stone*; both held love-reign against the bite of the *cobras de capello*, and other venomous creatures.

Antidote is also used, in a more general sense, for any compound medicine.

In which sense, Peter Damian speaks of a person who in his whole life never took an antidote.

Antidote is also used in a less proper sense, for any remedy against any disease, chiefly if it be inveterate, and arise from some ulcer or abscess.

Antidote is also used for a perpetual form of medicines, otherwise called opiates, or more properly confuctions.

Antidote is also mystically applied to the philosopher's stone.

ANTIENT. See Ancient.

ANTIDYSENTERICA, in the *Materia Medica*, medicines suited to cure dyentery.
ANT

ANTIGONAD, in Geography, a town of Hydra, two miles and a half northwest of Pedion.

ANTIGONCA, or Antigonia, a town of European Turkey, on the north of Jaco.

ANTIGONE, daughter of Cleophas and Jocalla, is celebrated by the ancient tragedians as a model of filial and fraternal virtue. She accompanied her father in the voluntary exile to which he was condemned, and conducted him in his wanderings after he had lost his sight; and when her brother Polyneus was killed in the fatal war of Thebes, the vessels to counteract the inhuman order of Creon, and to pay funeral honours to his expiomed corpse. The tyrant commanded her, for this offence, to be flaved to death in prison; but she eluded his barbarous sentence, by flinging herself to death; andHyemon, the son of Creon, who was her lover, killed himself upon her head's body. Gen. Bion.

ANTIGONE, in Fabulous History, the daughter of Idomoneus, celebrated for being more beautiful than Juno; and was transformed by the godhead into a fawn.

ANTIGONIA, in Ornithology, a species of Ardea. The head is naked, collar papillosus, and red; body cinceres; primary quills feathers black. Lannan. Gen. &c. This is the Indian crane of Latham, and genus orientalis indica of Bohn and Klein. According to Pennant and Latham, it inhabits the Mongolian deserts; from whence it migrates into that part of the Russian dominions which lies beyond Lake Baikal, keeping chiefly within the plains below the rivers Onon and Arlun, which is the western extremity of the Gobcan plain.

This bird is larger than the common crane, being in height five feet; the bill is of a greenish yellow, daffy at the tip; irides bright reddish hazel; crown of the head bare and white; on each side of the head, about the ears, is a bare white spot; the rest of the head, and a small part of the neck, covered with a fine red skin, and also distilate of feathers; the plumage of the bird is ash-colour, lightest about the neck; the quills are black; tail and secondaries ash-colour; those nearest the body are pointed at the ends, longer than the quills, and hang over them; the legs and base space above the knee are red; the claws white; the middle and outer toe connected by a membrane as far as the first joint. Latham. Gen. Syn. v. p. 38.

There is a variety of this species found also in the East Indies, &c grus torquata, and grus a collar of Buffon, which is four feet three inches and half in length; bill long and black; the head and neck, for above half its length, are almost naked, being covered with a reddish-white down; round the middle of the neck is a collar of red; the lower part of the neck, and rest of the body, bluish ash-colour; on the rump is a tuft of flowing feathers, which hang over the ends of the wings and tail, as in the common crane; the tail is black, legs daffy.

ANTIGONEA, in Ancient Geography, a city of Macedonia in Mygdonia, founded, according to Stephanus Byz., by Antigonus, the son of Gonatas. This was also the name of a city of Epirus, placed by Steph. Byz. in Chonae, and by M. d'Avville southeal of Apollonia, and near Celydun. Another, in Arcadia, was founded on the ruins of the ancient Mantinea, and this name had superseded the other by the adulation of the Greeks, who gave it the name of King Antigonus.

ANTIGONIA, a city of Troas, probably the same with that which was called Alexandria. This name was also given, according to Strabo, to Nicæa, a city of Bithynia. Antigonia was also a city of Syria, upon the Orontes. Diodorus Siculus informs us, that it was built by Antigonus, and that it was 170 stadia in circuit, and that it was designed for the residence of the governors of Egypt and of Syria; but when Seleucus was built, he destroyed Antigonia, and removed the inhabitants to this city. There was also a city of the same name in Asia Minor, in the vicinity of Busiris, or rather a fortress, about 50 stadia from the sea. Antigonia was also an island of the Thracian Bosphorus, now called Jafa del principe. This was also the name of a city of Macedonia in the Chalcidian territory, in the Thermaic gulf, now the Gulf of Thasianica. It is called Antigaea.

ANTIGONIA, in Geography, an island of the Portuguese, in the Brazilian gulf, near that of St. Thomas, called by them Iba da princi.

ANTIGONUS, in Ancient Geography, a country of Greece, in Attica.

ANTIGONUS, in Ancient History and Biography, one of Alexander's chief generals, was the son of Philip, a Macedonian nobleman. Upon the division of the Macedonian empire, after the death of Alexander, Pamphylia, Lycia, and Phrygia Major were assigned to him; but Perdicca, who allumed regal power, and who desired the talents and high spirit of Antigonus, determined to take him off; and with this view formed and encouraged various accusations against him. Antigonus, whilst he appeared to submit to Perdicca, and prepare for his trial, retired with his son Demetrius into Greece, in order to avoid the danger that threatened him, and put himself under the protection of Antipater and Craterus. After the death of Perdicca, when the provinces were again divided by Antipater, Lycaonia was added to those which Antigonus had originally possessed; and he was appointed to the command of the troops that were destined to act against Eumenes, who was now reputed a public enemy. Eumenes was at first totally routed, through the treachery of Apollonides, general of his horse; and compelled to retire into the castle of Nora, which was situated on an inaccessible rock, and very strongly fortifid. The place was invested by Antigonus, but he soon found that it was impossible to reduce it by force; and he therefore contented himself with erecting a strong wall about it, and leaving a sufficient number of troops to guard it, and marched against Alcetas and Attalus, who had raised a considerable force for the succour of Eumenes. Having taken the one and reduced the other to the alternative of surrendering or defying himself, which latter mode of escape he preferred; their troops were disperfed, and Antigonus had leisure to concert those plans of ambition which he determined to accomplish. Upon receiving the news of the death of Antipater, he resolved to seize Asia. In order to facilitate the execution of his projects, he removed all the governors of provinces who were not in his interest, and endeavoured to secure friends in whose constancy and valour he might confide. With this view, he solicited the concurrence of Eumenes; but this faithful commander having contrived to make his escape from the castle of Nora, assembled an army, and was appointed the royal general in Asia. After several advantages which he gained over the army of Antigonus, he was at length delivered by treachery to his enemy, and put to death. Having thus removed the principal obstacle to his progress, he soon vanquished lesser difficulties; and making himself master of the immense treasures of Sula, he marched forward to Babylon, of which Seleucus was governor. Seleucus eloped, and entered
entered into a league with Ptolemy, Lysimachus, and Caffander, in order to reduce the power of Antigonus, and secure themselves in their possessions; but in the mean while Antigonus feized the provinces of Syria and Phœnicia. In consequence of a diversion given by Caffander to his arms, Ptolemy recovered Syria, and defeated Demetrius, his son, who had been sent to oppose him. Antigonus, however, who was then in Phrygia, hearing of this defeater, hastened his march over mount Taurus to join his son, and recovered all the provinces which he had lost. Emboldened by this success, he formed a design of subduing the Nabath Arabs, who inhabited the defects bordering on Judea. To this service his general Athenæus was appointed; but after having surprised Petra, and possessed himself of its treasures, he was followed by the Arabs; and his whole army, indulging themselves in their imagined security, was cut off, with the exception only of 50 horse, who made their escape. Upon this Antigonus sent his son Demetrius against the Arabs, but he could only succed so far as to bring them to a kind of composition, with which he was obliged to be satisfied, and to return. He was afterwards sent against Seleucus, who had recovered the province of Babylon, but which he was now obliged again to abandon; and the refult of this expedition was, that the confederates made a treaty with Antigonus, and surrendered to him the possession of the whole of Asia, upon condition that the Greek cities should remain free. The treaty was soon broken; and Ptolemy made a defeat in Lesser Asia, and some of the islands of the Archipelago, which was at first successful; but he was defeated in a sea-fight by Demetrius, who took the island of Cyprus, and also a great number of prisoners. Such was the effect of these successes on the mind of Antigonus that he assumed the title of king, and conferred the same on his son; and from this period (ante Chr. 306) properly commences his reign in Asia, and also the reign of Ptolemy in Egypt, and those of the other captains of Alexander in their respective territories. Antigonus now formed the design of driving Ptolemy out of his Egyptian dominions, and for this purpose he prepared a powerful army and fleet, putting himself at the head of the former, and committing the command of the latter to his son Demetrius. This expedition, however, proved unsuccessful, and the design was abandoned. The reduction of Rhodes was the next object to which the attention of Antigonus was directed; but the enterprise was difficult of execution; and Demetrius having made a favourable treaty with the inhabitants, obeyed the summons which he received to aedit the Athenians against Caffander. This was followed by a new confederacy on the part of Caffander, Seleucus, and Lysimachus, against Antigonus and his son; and in order to resist it, they combined their forces, and marched with a powerful army to Phrygia. Here they met Seleucus and Lysimachus with a force nearly equal; and there ensued the decisive battle of Iphus, of the event of which Antigonus seems to have some pretention; for in the prospect of it he appeared thoughtful and melancholy, and was frequently seen at intervals and, contrary to his usual manner, was slow in his resolutions, consulted much with Demetrius, and as he was reviewing his troops, recommended him to the officers as his successor. His usual confidence, therefore, seems to have forsaken him. On the morning of the battle, as he was rising from a fall with some difficulty, he exclaimed, "Immortal gods! grant me victory, if it be your will; but if not, let me fall in battle, and not survive my fading glory." Whilst the battle was advancing, the king was defeated by a number of traitors, who went over to the enemy; and at length he was overpowered by a shower of arrows, and thus terminated his life in the 84th year of his age, ante Chr. 301.

The character of Antigonus was that of a soldier of fortune, brave, active, sagacious, of inflatible ambition and avarice, and too heedless of the means by which these passions were gratified. He had also other better qualities; and towards the close of his life he became more mild and tolerant, and endeavored by good will to retain the subjects whom he had acquired by force. In all private concerns he was justly just; and to his brother, who wished him to hear in his cabinet a cause in which he was a party, he replied, "No, my dear brother; I will hear it in the open court of justice, because I mean to do justice." Concerning the weight and duties of his office, he frequently uttered philosophical sentiments; and when addressed by Hermodotus, a Greek poet, and one of his flatterers, with the title of a god, and the offspring of the sun, he remarked, that his chamberlain well knew the contrary. At another time, when he was complimented upon his recovery from sickness, he said, "This disease was sent to apprise me, that being a mortal, I should not grasp at anything above a mortal." As an apology for his extortion, to which he was urged by his exigence, and when he was reminded that Alexander asked differently, "True," said he; "Alexander reaped Asia, and I only glean it." With regard to his domestic conduct, and the harmony with which he lived with his wife and family, Antigonus was peculiarly distinguished; and such was his affectionate confidence in his son Demetrius, that, though he was a youth of splendid talents and considerable ambition, he admitted him as an associate both in his title and government; and Demetrius approved himself not only the dutiful son, but the loyal subject and attached friend. Anc. Un. Hist. vol. vii. p. 443-479. vol. viii. p. 1-7.

Antigonus Gonatas, so called from the place of his birth, was the son of Demetrius Pohorocetes, and grandson of the preceeding Antigonus, and distinguished by his prudence and mildness more than by his valor. His hereditary claims to the dominions of Demetrius, which comprehended several cities of Greece and the kingdom of Macedon, involved him in various contels, in which he alternately succeeded and was defeated. After the death of Soithenes, the evacuation of Macedon by the Gauls, he offered his claim, which he had before done without effect against Ptolemy Ceraunus; but on this occasion he was opposed by Antiochus Soter; the event of the contest was favorable, and he was restored to his possessions. He afterwards established himself by defeating the Gauls, who made an irruption into his kingdom; but was himself expelled by Pyrrhus, king of Epirus. He afterwards recovered a great part of Macedon; and followed Pyrrhus to the neighborhood of Argos. But the inhabitants wished neither of the contending princes to enter their city. Pyrrhus acquiesced, and at the same time challenged Antigonus to determine the contest by single combat. To this challenge Antigonus replied; "That in making war, he used not only arms, but time; and that if Pyrrhus was weary of life, there were many ways to death, which lay directly before him." Pyrrhus, in a contest that ensued, was slain: and when the son of Antigonus brought the head of the vanquished prince to his father in triumph, Antigonus thrust his son from him with disdain; "Barbarous wretch!" says he, "do thou think, that he whose grandfather was thus slain, and whose father died a captive, should rejoice at such a sight?" Then covering the head with his robe, he bedewed it with his tears, and ordered the body to be sought, and burned with all the funeral
ral honours due to a king. When Helenus, the son of Pyrrhus, was brought to him by the same son, who had treated his captive kindly; "Weil my son," said Antigonus, "this is better than you did before; however, you have done less than your duty ill, because you have suffered a perfom of his quality to approach me in that thread-bare coat, which is not a disgrace to him, but to our victory." Having entertained Helenus with respect, and kindled him for the loss of his father, he set him at liberty. He also extended his favour to the principal officers in the army of Pyrrhus, and incorporated the troops bay commanded in his own. In the closing years of his life and reign he governed his subjects in Macedon, recovered to him from the Gauls by his son Demetrius, in peace; and enlarged his authority, and consolidated the attachment of the people both to himself and to his descendants. On occasion of the siege of Thbes, in the earlier period of his life, he remonstrated with his father on account of the loss of so many lives for an object so incon siderable. Nevertheless, he was eminently distinguished by filial affection and respect to his father; for when he was made plaintiff by Scelusus, he offered himself as hostage to procure his liberty; and not succeeding, wore deep mourning, and declined participating in any futilities, while his father remained in prison; and on the news of his death, he prepared a fleet, with which he failed to meet his ashes, which he received with the utmost sensibility and respect. One of the least honourable transactions of his life, was his gaining possession of the citadel of Corinth by means of a stratagem, the success of which threw him into a phrenzy of joy; and of the power which he acquired by this event, he made use in augmenting his dominions in Greece, and supporting the petty tyrants against the free states. The Achaeans, under their illustrious chief Aratus, vigorously opposed him, and at length recovered Corinth; but Antigonus, indisposed to war, pursued his course of artful and peaceable policy. After a reign of 34 years, and having attained the age of above 80 years, he died, ante Chr. 343, and was succeeded by his son Demetrius II. Anc. Un. Hist. vol. viii. p. 53—62.

Antigonus Doros, q. d. will give, so called because he was more ready to promise than to perform, succeeded his brother Demetrius II., whose widow he married, in the throne of Macedon; and was distinguished by his great talents in maintaining peace at home, and profecting war abroad; by his reputation for justice; by clemency towards his enemies; and by a pliable and kind heart towards his friends. The Achaeans invited him into Greece, to aid them in counteracting the power of Cleomenes, king of Sparta, who was himself assisted by the Eleans. The citadel of Corinth was put into his hands; and Aratus, who was now become a friend to the Macedonians, was distinguished by his respectful attention. Whilst the greater part of his army was absent, he declined an engagement with Cleomenes; but as soon as his forces arrived, he totally defeated him at Selinus; and by this victory, became master of the hitherto unconquered city of Sparta, which, however, he treated with great lenity, and left free. He then made a precipitate march back into Macedonia, in order to retake the Illyrians, who had, during his absence, invaded that kingdom. In his return, he refoled the little republic of Tegea; and arriving at Argos, during the celebration of the Nemean games, he received many testimonies of respect from the Greek states. The deliverance of his country cost him his life; for in a battle with the Illyrians, though victory was decisive and complete in favour of the Macedonians, the king fell a sacrifice, not to the sword of the enemy, but to the exertion he used in training his voice during the engagement, and to a spattering of blood that was the consequence of this exertion. This boon terminated in his death, ante Chr. 221. Having died, as he had lived, in the service of his country, he appointed for his successor Philip, his brother's son, to whom he had acted the part of a kind and faithful guardian. Anc. Un. Hist. vol. viii. p. 63—66.

Antigonus, king of the Jews, the son of Aristobulus II., was established on the throne of Judah by the assistance of the Parthians. Soon after his accession, he caust the ears of his uncle Hyrcan, the high priest, to be cut off, that he might be incapacitated for the office; but Herod, who had betrothed, and afterward married, Mariamne, the grand-daughter of Hyrcan, invaded Jerusalem, and after a siege of six months, took it by storm. With this event, which happened ante Chr. 37, ended the reign of the Antigonids, which had continued 129 years, from Judas Maccabaeus to Antigonus, the last male of that race who bore the royal title. Simon, governor of Syria, who commanded the Roman forces, and who had officiated Herod on this occasion, having presented a crown of gold to the temple, left a shameful death to the latter, of whose death he performed a faithful account in the third year of his reign. Anc. Un. Hist. vol. iii. p. 159.

Antigonus Carystius, a philosopher and historian, flourished under the Ptolemies Lagus and Philadelphus, about 300 years before Christ. He wrote several lives of philosophers, an heroic poem, entitled, "Antipater," mentioned by Athenaeus, and other works; but none are extant, except one epigram, Καρυστίου Αντιγονος, a collection of wonderful stories concerning animals and other natural bodies, compiled from various authors. This work was first published by Xivander, with a Latin version, at Basle, in 1563, Svo.; and reprinted at Leyden, by Meursius, in 1619, 4to. Fabric. Bib. Graec. lib. iii. c. 27, § 8. tom. ii. 672.

Antigonus Sochæus, a Jew, was born at Socho, on the borders of Judæa, flourished in the time of Eleazar the high priest, about 300 years before Christ, and was a disciple of Simeon the Jul. Offended at the innovations, which were introduced by the patrons of the traditionary institutions, and particularly at the pretenions which were made to meritorious works of supererogation, by which men hoped to establish a title to extraordinary temporal rewards, he strenuously maintained and taught, that men ought to serve God, not like slaves for hire, but from a pure and disinterested principle of virtue. This refined doctrine, opposed by Antigonus merely to the expectation of a temporal recompense for works of religion and charity, was misinterpreted by his followers, and extended to the rewards of a future life; and particularly by Simeon and Baithus, two of his disciples, who taught that no future recompense was to be expected, and consequently that there would be no resurrection of the dead. This doctrine they taught to their followers; and hence arose, about 200 years before Christ, the sect of the Baithofæi, or Suducees. Brucker, Hist. Philos. by Enfild, vol. ii. p. 172.

Antigraphæ, from αυτοί, and γραφα, I write, in Antiquity, denotes a law suit about kindness, whereby a person claimed relation to such or such a family.

The antigraphæ appears to have been the fame with παναγιγραφά.
accounts, to prevent mistakes, and keep them from being falsified. Potter Arch. lib. I. c. 14.

Antigraphus is also used, in Middle Age Writers, for a secretary or chancellor. He is thus called, according to the old glossarists, on account of his writing answers to the letters sent to his master. The antigraphus is sometimes also called arctigraphus; and his dignity antigraphus, or arctigraphus. Du-Cange.

Antigraphus is also used in Isidorus for one of the notes of sentences, which is placed with a dot to denote a diversity of sense in translations.

Antigraphus is also applied, in Ecological Writers, to an abridgment of the papal letters. In which sense the word is used by pope Gregory the Great in his Register.

Of late days, the office of antigraphus confits in making minutes of bulls from the petitions agreed to by his holiness, and renewing the bulls after engrossing.

Antigua, called also Antigo, in Geography, one of the Antilles or Caribbe isles, belonging to Britain, and lying about 20 leagues east from St. Christopher's, and 10 north-east from Montserrat; and being about 50 miles in circumference, is reckoned the largest of all our Leeward islands. It contains 59,838 acres of land, of which about 34,000 are appropriated to the growth of sugar, and parfure annexed; its other principal staples are cotton-wool and tobacco; and in favourable years it furnishes great quantities of provisions. Antigua was one of the Caribbe isles discovered by Colon, in his second voyage, and is said to have been planted by the English in 1632. The first regular grant of it was made by Charles II. about 1663, to William lord Willoughby of Parham. The French were masters of this island for a few years, but in 1668 it was restored to the English by the treaty of Breda. It owes its chief prosperity to the attention of colonel Christopher Codrington, who, in 1746, removed from Barbadoes to Antigua; and having been appointed captain-general and governor of all the Leeward isles, made this the seat of his government. He applied his knowledge in sugar-planting with such good effect and success, that others, animated by his example, and affixed by his advice and encouragement, ventured in the same line of cultivation. The climate of Antigua is hotter than that of Barbadoes, and so subject to hurricanes, that if it were not for the convenience of its situation and harbours, it would probably be uncultivated and desert. Its soil is of two different kinds; the one, a black mould on a subfratum of clay, which is naturally rich, and in favourable seasons, when unchecked by the droughts to which the island is subject, very productive. The other is a stiff clay on a subfratum of marl; less fertile than the former, and abounding with a kind of gravis which is not capable of being eradicated, so that many estates once profitable, are now covered with it, and so impoverished, as to become either pasture land or utterly abandoned. Exclusively of such defeated land, and such part of the island that is altogether unimproved, the whole of it may be said to be under cultivation. It is not easy to ascertain an average return of the crops; because they vary to such a degree, that the quantity of sugar exported from this isle in some years is five times greater than in others. In 1775, were shipped 3,582 hogheads, and 579 tiers; and in 1782 the crop was 13,102 hogheads, and 5,653 tiers. Mr. B. Edwards is of opinion, that the isle has progressively decreased both in produce and in white population. It appears from the returns to government in 1774, that the white inhabitants of all ages and sexes were 2,430, and the enslaved negroes 37,803; and 17,000 hogheads of sugar of 16 cwt. are reckoned a good saving crop; which is about a hoghead of sugar per acre for each acre that is cut.

Antigua is divided into six parishes and 14 districts, and contains six towns and villages: viz. St. John's, the capital, Parham, Falmouth, Willoughby Bay, Old Road, and James Fort, of which the two first are legal ports of entry. No island in that part of the world can boast of so many excellent harbours; the principal of which are English harbour and St. John's, both well fortified; and at the former, the British government has established a royal navy-yard and arsenal, and conveniences for caring ships of war. The governor of the Leeward Islands is generally stationary at Antigua; in hearing and determining causes from the other islands, he presides alone in cases arising in Antigua, he is assisted by his council; and by an act of assembly of this island, confirmed by the crown, the president, and a certain number of the council may determine chancy causes, during the absence of the governor-general. The other courts of this island are a court of king's bench, a court of common pleas, and a court of exchequer. The legislature of Antigua is composed of the commander in chief, a council of 12 members, and an assembly of 25. This legislature presented the first example of the mitigation of the criminal law, respecting negro slaves, by giving the accused party the benefit of a trial by jury; and allowing, in the case of capital conviction, four days between the time of sentence and execution. The military establishment generally consists of two regiments of infantry, and two of foot militia, besides the force raised in the island. The Moravians have been active in their endeavours to enlighten the minds of the negroes, and to lead them into the knowledge of religious truth; and the number of converted negro slaves under the care of the brethren, at the end of the year 1787, was 5465. St. John's lies in N. lat. 17° 40'. 30'. W. long. 62° 46'. Edwards's West Indies, vol. i. p. 437-455.

Antigugler is a crooked tube of metal, so bent as easily to be introduced into the necks of bottles, and used in decanting liquors, without disturbing them. For this purpose the bottle should be a little inclined, and about half a spoonful of the liquor poured out, so as to admit an equal quantity of air; let one end of the bent tube be stopped with the finger, whilst the other is thrust into the body of the liquor near the bubble of air already admitted. When the finger is taken off, the bottle will have vert, and the liquor will run out steadily and undisputed. See Siphon.

Antithecics, in the Materia Medica, remedies against hectic disorders.

Antitecticum Poteri, in Pharmacy, a celebrated chemical preparation, made of equal quantities of tin and chalybeated regulus of antimony, by melting them in a large crucible, and putting to them, by little and little, three times the quantity of nitre; the detonation being over, the whole is to be washed with warm water till no saltiness remains.

This was formerly esteemed a very penetrating medicine, making way into the minutest pittings, and searching even the nervous cells; whence its use in hectic disorders, from which it derives its name. It was accordingly recommended in hæmorrhages of the head, giddiness, and dizziness of light, from whence proceed apoplexies, and epilepsies; and in all affections and foulness of the viscer of the lower belly; and also in the jaundice, dropsies, and all kinds of cachexies. Quincke adds, that there is fearlessly a preparation in the chemical pharmacy of greater efficacy in most obstinate chronic distempers. But Neumann observes, that it has no claim to one
ANTHOCYTIC, nor indeed to any salutary operation; and it is now generally disregarded. See Neumann's Chem. Works, p. 82., and 178.

It is also called _antitoxinum digesitricum jovius_. There are divers methods of preparing it, given by Wedelius, Etnmuller, &c. A learned author speaks of it as fatal to consumptive persons. Junker says of it, that in hectic fever, it is rather injurious than salutary. Gmelin's _Apparatus Medic._ vol. i. p. 275.

ANTILEGOMENA, in _Scripture Criticism_, an expression denoting doubtful, but acknowledged by most to be genuine, one of the three classes into which Eusebius has distributed the books of the New Testament; the other two are homologomena, i.e. of undoubted authority, and noth or spurious. To this class he refers the epistles ascribed to James and Jude, the second of Peter, with the second and third of John, whether they were written by the evangelist, or by another person of the same name. He is of opinion that these books may be received as genuine productions of the Apostolic age, even if they were not written by the evangelists. Euseb. Eccl. Hist. lib. iii. c. 2.

ANTILEXIS, from αντιλέγομαι, _contra duct in_, _Antiquity_, denotes a new trial granted in the Athenian judicatures, where judgment had before passed against a party for non-appearance.

ANTILIBANUS, in _Ancient Geography_, a chain of mountains in Caelo-Syria, which ran parallel to the other chain denominated Libanus, and both extended from south to north. Antilibanus was the east, and commenced nearly to the north of Upper Galilee, from which it was separated by mount Hermon, and reached almost to Heliopolis, where it terminated; and thus a distinction is established between Libanus and Antilibanus, though the scriptures call them both by the same common name, Lebanon. The long valley that was situated between these two chains of mountains was called Caelo-Syria. These mountains are now inhabited by those semi-christians called Druzes. The Jordan has its source in these mountains.

ANTILLARUM. in _Conchology_, a species of _nerita_, very frequent on the shores of the Antilles islands. The shell is tubo-globose and black; within white, grooved, and frilled; vertex obtuse; and both pillar and outer lip rugose and denticulated. Gmelin.

ANTILARUM, in _Ornithology_, a species of _falco_, described in L'Histoire des Antilles, tom. ii. p. 252, under the name of Mansenny, by Buffon; and likewise called le faucon des Antilles by Buffon, Orn. i. p. 701. This is the falco Antilleanus of Gmelin, who says it is brown, crown black, and belly white; and Mansenny of Latham, who characterizes it specifically as having the body totally brown. This bird has the shape and plumage of a eagle, but is smaller, being not much bigger than a falcon, and has legs and claws double the size in proportion to those of the falcon tribe. It is found in the Antilles or Caribbean islands, and feeds on small birds, snakes, lizards, &c.

ANTILLES, in _Geography_, a denomination differently applied by various geographers. The term is applied by Hoffman (_Lexicon._) to the Windward or Caribbean islands only; and he says, "dicuntur Antille Americae quasi ante fictus Americae, nempe ante majores insulas finis Mexicanit.

Rochfort and Du Tertre explain the word nearly in the same manner; whilst M. D'Aville applies the name to those islands only which are _anti-infima_, or more immediately _opposed to_, or situated against the continent. Thus he terms Cuba, Hispaniola, Jamaica, and Porto-Rico, the _Great Antilles_; and the small islands of Aruba, Curacao, Bonaire, and Margarita, and some others near the coast of Caraccas on the southern peninsula, _the left_; altogether excluding the Caribbean islands. The Spanish historians plainly prove, that the word _Antilla_ was applied to Hispaniola and Cuba, before the discovery either of the Windward islands, or any part of the American continent. This appears from a passage in the first book of the first decade of Peter Martyr, bearing date from the court of Spain, Nov. 1493, eight months only after Columbus's return from his first expedition: "Ophirum insulam fepe reprehendit refert, feces mirificorum tractu diligenter considerato, Antilia infima sunt ille et adjacentes alia; hanc Hispaniolam appellavit, &c." The cluster of islands, denominated the Antilles, is usually divided into Great and Small. They lie from 21 to 24 degrees of N. lat. and are by many geographers distinguished into Windward and Leeward islands; and they lie in the form of a bow, stretching from the coast of Florida north to that of Brazil south. The Greater Antilles have usually been made to comprehend Cuba, Hispaniola, Jamaica, and Porto-Rico; and the Lesser to include Aruba, Curacao, Bonaire, Margarita, and some others near the coast of Terra Firma. See each under its proper head. See also _Caribbees._

If we examine, says M. Buffon, the position of the Antilles, beginning with the island of Trinidad, which is the southernmost, it is impossible to doubt but that Trinidad, Tobago, the Grenades, St. Vincent, Martinico, Marigalante, Antigua, Barbadoes, and all the adjacent islands, once formed a chain of mountains, which extended from south to north, like Newfoundland, and the country of the Equinoctia. The direction also of the Antilles from east to west, if we begin with Barbadoes, and psfs on to St. Bartholomew, Porto-Rico, St. Domingo, and Cuba, is nearly the same with the coasts of Cape Briton, Arcadia, and New England. All these islands lie so contiguous, that they may be regarded as a continued belt of land, and as the most elevated parts of a country now occupied by the sea. These islands, therefore, he considers as relics of ancient continents, that seemed to unite the old continent with America. Buffon's _Works_, by Smellie, vol. i. p. 316., vol. xix. p. 182.

ANTILLON, in _Geography_, a town of Spain, in Navarre, five leagues from Balbastro.

ANTILOCHUS, in _Entomology_, a species of _papilio_ that inhabits North America. The wings are tailed, and yellow both above and beneath, with black bands and margin; tail white, and as long as the wings. Linnaeus, Fabricius, &c. This is papilio caudatus maximus (Euris umbriake nigris of Petiver mart. p. 50., n. 505.

ANTILOGARITHM, the complement of the logarithm of a finite, tangent, or secant; and it is found by beginning at the left hand, and substracting each figure from 9, and the last figure from 10.

ANTILOGY, _antologia_, q.d. contrary saying, a contradiction between two expressions or passages in an author.

Tinius has published a large index of the seeming _antologies_ in the Bible, i.e. texts which apparently contradict each other, but which are all explained and reconciled by him, in his comments on the Bible. Dom. Magri, a Maltese of the Oratory in Italy, has attempted the like; but he has done little more than rehearse what occurs of that kind in the principal commentators.

ANTIOMICA, in _Materia Medica_, medicines which preserve against the plague.

ANTIOPF, in _Entomology_, a species of _lucanus_ that inhabits Africa, and is described in the Stockh. Tran. 1787. The jaws are exerted, and bimarginated on the interior side; upper margin two-toothed, lower margin five-toothed. Swedense, Gmelin: found in Sierra Leone; it is brown, and rather smooth.
ANTILYSSUS in Medicine, is composed of equal parts of the lichen aureus turritis, & piper niger. It is reckoned useful in preventing the rashes canina. Phil. Trans. N° 448.


ANTIMACHUS, in Biography, a name applied to three Greek poets, of whom the most celebrated was the son of Hipparchus, a native either of Claros or of the neighbouring Colophon, who flourished in the 93d Olympiad, about 465 years before Christ. He was reckoned one of the first and most famous Greek poets; and he is ranked by Quinellian next to Homer, at a great distance, in heroic poetry. His great work was a "Theaid," or an epic poem on the war of the Thebes. It is said that it consisted, before the seven chief were brought to the siege, of 24 books; and at a public recital of his piece, all his auditors, except one, deserted him; but this one was Plato; and Antimachus declared, that he would read on, as Plato alone was equal to the whole audience. When his fame was almost forgotten, the emperor Adrian endeavored to revive it, and to give him the priority to Homer; but a Roman emperor could not do this. Antimachus wrote a poem to Lyde, supposing to be either his wife or his mistress, the celebrity of which may be inferred from the mention of it by Ovid:

"Nee tantum Clario Lyde dilecta poetae."

"More lov’d than Lyde by the Clarian bard."

Nothing of this writer has reached modern times. Voëlius, Gen. Biog.

ANTIMACHUS, in Entomology, a species of papilio that inhabits Africa. The wings are indented, long, and black; interior pair spotted with rufous; disk of the posterior pair rufous, radiated, and marked with black spots. Fabricius, &c.

ANTIMACO, Mark Antony, in Biography, a learned Italian, was born at Mantua about the year 1473. He spent five years at Greece in the study of the Greek language; and on his return opened a school at Mantua for the study of this language and of polite literature, which became famous. He purified the same employment at Ferrara, where he died in 1552. Antimaco translated several pieces from the Greek, which were printed at Basle in 1540, together with an imitation in praise of Grecian literature. He also wrote Latin poems. Thes. of Gib. Gen. Biog.

ANTIMENIUS, a kind of consecrated table-cloth, occasionally used in the Greek church, in places where there is no proper altar.

F. Goar observes, that in regard the Greeks had but few consecrated churches, and that consecrated altars are not things easy to be removed; that church has, for many ages, made use of certain consecrated flours, or linens, called antimenia, to serve the purposes thereof.

ANTIMENIUS, in the Greek Church, answers to the altar portable, or portable altar, in the Latin church. They are both only of late invention, though Habertus would have them as old as St. Basil. But Durant and Bona do not pretend to find them in any author before the time of Gregory and Charlemagne.

Antimenia is also applied to other tables, used in offices of religion, besides those wherein the eucharist is administered: such, e. g. are those wherein the host is exposed, &c. The origin of the antimenia is described by Macrobius: when the bishop had consecrated a church, the cloth which had been spread on the ground, and over the communion-table, was torn in pieces, and distributed among the priests, who carried each a fragment away, to serve to cover their tables in their churches and chapels. Not that it was necessary that such cloths should be laid on all tables, but only on those which either were not consecrated, or at least whose consecration was doubted of.

Antimenius, an ancient officer in the Greek church, whose business it was to introduce and place the communicants at the eucharist.

Some have imagined that he had the care of the antimenia. But this rather belonged to the office of great fiscophyla. He is otherwise called chief of the antimenia.

ANTIMENIA, from ant, and men漂亮的, a part, in Grammar, a figure whereby one part of speech is used for another: e. g. "velle fuisse simulquis effluere; for voluntas fut simulquis effluere; also populus late rex for populus late regnans.

Antimenia, in a more restrained sense, is a figure whereby the noun is repeated instead of the pronoun.

The antimenia is frequent in the Hebrew, and is sometimes retained in our version of the Old Testament; accordingly, e. g. "Hear my voice ye wives of Lamech, for my wives, Gen. ch. iv. ver. 23.

ANTIMETAPOLE, in Rhetoric, a figure which sets two things in opposition to each other.

The word is compounded of ant, against, and meta, from μετά, I shift, or transfer; i.e. a shifting, or setting two things over against each other.

This figure is twice exemplified in an apologium of Musonius; which, on account of its excellence, is called auream monitionem, the golden maxim or precept:

"Αν τι πράξας καλόν μετά ποιόν, ή μεν πόσον δικαιότερον, τό Μεν καλό μέλλειν.
Αν τι πράξας αιτχριβίν μετά ποιόν, τό μεν πόσον δικαιότερον, τό δε αιτχριβίν μέλλειν.

In English thus:

"Allowing the performance of an honourable action to be attended with labour; the labour is soon over, but the honour immortal; whereas, should even pleasure wait on the commissiion of what is dishonourable, the pleasure is soon gone, and the dishonour eternal."

ANTIMETHYTHESIS, from ant, and μετά, I transfer, in Rhetoric, is the inversion of the parts or members of an antithesis. Such is that of Cicero, in Verrem, lib. iv. cap. 52. "Compare this peace with that war; the arrival of this governor with the victory of that general; his profligate troops with the invincible army of the other; the luxury of the former with the temperance of the latter; you will say, that Syracuse was founded by him who took it; and taken by him, who held it when founded."

ANTIMIL, in Geography, a small desert island of the Archipelago, a few miles north-west of Milo, and like it appearing volcanic.

ANTIMUS, in Antiquity, a table placed before the Roman tribunal or judgment-seat.

What relation this has to the antimefia in the Greek church
church, does not appear. Some writers confound them together as the same thing.

ANTIMONARCHICAL, from ἀντι and μονARCH, μον, alone, and σικτον, dominion, something that oppresses or hinders against monarchy or kingly government. Antimonarchial is frequently used in the sense of republican.

ANTIMONARCHIST, a person who maintains antimonarchical principles.

Buchanan, Milton, Hutton, Langue, Ludlow, Sidney, and others, are celebrated antimonarchs.

ANTIMONARCHOMACILLI, from ἀντι, and mon, and μακ illi, antimonarchomachi, is used by some political writers to denote maintainers of monarchical or absolute power clothed by divine right in the persons of princes. In which sense, antimonarchomachi land opposed to monarchomachi.

King James the First, Salmasius, Peter du Moulin, bishop Bramhall, Albericus Gentilis, Ziegler, William and George Barclay, etc. have distinguished themselves in the clasps of monarchicalchills. Acker has treated profusely of the monarchomachills and antimonarchomachills.

ANTIMONIALS, in Medicine, denote preparations of antimony, or remedies whereof antimony is the basis or principal ingredient.

Antimonials are chiefly of an emetic tendency; though they may be so qualified as to become either cathartic or diaphoretic, or even only alterative. See WARD'S Pill.

An antimonial cup, made either of glafs of antimony, or of antimony prepared of falt-petre, though a substance indiffusible by the stomach, will give a forc'athartic or emetic quality to any liquor poured into it, without any diminution of its own weight.

ANTIMONIATED, something tinged with the qualities, or resembling the appearances of antimony.

Dr. Woodward speaks of a kind of irritat'd, or antimonyated lead ore.


Antimony is a brittle metal, of a brilliant white colour; fusible at a moderate red heat; and at a higher temperature, with access of air, it exhales a white inodorous vapour. It is soluble in nitric acid, and precipitable from its solution of a white colour by distilled water, and of a deep brick-red by sulphur of ammonia (volatile liver of sulphur.)

4. Ores of Antimony.

The antimonial ores have not as yet been analyz'd with sufficient accuracy to clear up all doubts as to the nature of their contents; an arrangement of them must, therefore, as yet principally depend on their external characters. We shall follow the example of Weidenmann, Emmel'ing, &c. in dividing them into several species, though probably the whole may be reduced to the native, the sulphurated, and the oxidated.


Has a light thin-white colour, with an occasional shade of yellow. Occurs massive, diffe'ediated, or kidney-shaped. Is internally of a brilliant metallic luster. Its fracture is either strat'd or curved foliated. The fragments are usually large or small grain'd; seldom concho'idal. It is soft, approaching to half hard, and of considerable specific gravity.

It melts with ease on charcoal before the blowpipe, exhaling a white ar~ecutous flame, and readily amalgamates with mercury.

By the analysis of Mengez the younger, it appears to be a native alloy of antimony and arsenic, in the proportion of about 96 of the former to 4 of the latter.

Native antimony is a mineral of very rare occurrence; it was first found in 1748, by Schwab, in the silver mines of Sahl'a in Sweden, with a gangue of calecarous spar; and has since been detected by Sage imbedded in quartz in the mines of Allemont in Dauphiné.


Of this ore there are three varieties, the compact, foliated, and stratified.


The colour of this is lead grey, passing into red, and is tinged blue or purple on exposure to the air. It occurs massive or diffe'ediated. Is of a metallic lustre, shining or little thinning. Its fracture is fine-grain'd uneven. It flies, when broken, into irregular plane-cornered fragments. Is soft, gives a bright metallic streak, and is of considerable specific gravity.

It melts with great ease before the blowpipe, and burns with a blue flame, exhaling a copious white sulphurous vapour.

It is the scarcest of the sulphurated antimonial ores, and is found principally in quartz and phlogopite iron ore at Braundorf in Saxony, Goldkronach in Bavaria, Avetovre in France, and Majuska in Hungary.


This differs from the former variety in the following particulars. Colour, light lead-grey. Fracture fine grain'd foliated, fpl. gr. 4. 36. Occurs in quartz at Braundorf, and at Nagyug in Hungary.


Its colour is light lead-grey, passing into a blackish grey, azure blue, golden yellow, and other splendid indefinite tints. It occurs diffe'ediated, or in elastic marmellite and flaky chelitic mica; or crystal-lized. The primitive form of its crystals has not yet been ascertained. Haüy has shewn that they are mostly cleft and nearly divisible in one direction only, parallel to their axes; other natural joints are, however, discernible by the varying reflection of light from these surfaces when held before a candle. The only crystal-line form that has hitherto been determined, is a compressed hexagonal prism, terminated by obtuse tetrahedral pyramids with trapezoidal surfaces (antimonium sul'dure secundum of Haüy). See crystallographical plates, fig. 266. Incidence of on s 134° 3; of on l 160° 30; of on t 140°. Born also mentions specimens from Hungary and Norway of truncated tetrahedral prisms. The surface of the crystals is generally marked longitudinally, with delicate fibres, and pollesies much luster. The internal luster both of the amorphous and crystal-lized kinds is metallic and bright, or little thinning. Its fracture is friable either broad or narrow, radiating, diverging, or implicate. When broken, it flies into irregular prismatic, or large granular fragments. Is soft and brittle. Specific gravity from 4.13 to 4.54. Its component parts, according to Bergman, are,
ANTIMONY.

The Hungarian antimony also contains a small variable proportion of gold.

This is the commonest of all the antimonial ores: it is procured at Freymuth and Telobunya in Hungary, at Dra-\(\text{v}i\)za in the Banat, Braunford in Saxony, the Black Forest in Swabia, Pereta in Tucyfan, Lublia in Auvergne, and Cornwall in England; also in Spain, Mexico, and Siberia. The splendid iridescent specimens come principally from Hungary.

Subphurated antimony is sometimes confounded with oxyd of manganese; it may, however, be clearly distinguished by the great ease with which it is fusible in the flame of a common candle: it differs also from native antimony in exhaling, when heated, a sulphurous, and not an arsénilous odour; in being of a darker colour, and leaving a dark grey trace when rubbed on paper.

It is found, for the most part, in primitive mountains, in micaceous schistus, and clay porphyry, mixed with pyrites and oxyds of iron: the gangue is sulphurated barytes in Hungary, but elsewhere, for the most part, quartz; also, though rarely, bladedony flour and calcareous spar.


The colour of plumeo antimony is fleck-grey, passing into greyish black, lead, or smoky grey: by exposure to the air, it tarnishes to an iridescent blue or yellow. It occurs in slender minute capsular crystals involving the surface of quartz and other minerals with a delicate brittle down or wool: the crystals are sometimes feebly visible to the naked eye, and so impregnated with each other, as to appear like an amorphous crust. According to Delide, the form of the crystals is that of a compressed hexahedral prism, terminated by dichoiid summits with pentagonal faces; the longitudinal fibre, however, are generally so strongly marked as to obscure the sides of the prism. Its lustre is semi-metallic, more or less glistening. The fracture is coarsely fibrous, and the fragments are indeterminate. It is brittle: fp. grav. 3.57. Before the blowpipe it emits a smoke that departs a white and yellow powder on the charcoal, and the residuum then melts into a black flag. No accurate analysis has yet been made of it; but, according to Bergman, it consists of antimony, iron, arsenic, sulphur, and sometimes silver.

This substance is ranked by many mineralogists among the silver ores; but improperly, as the proportion of silver is casual and variable, and never exceeds \(\frac{1}{4}\) or 4 per cent.

It is met with in the Saxon mines, especially that of Himmelfurth near Freyberg; also at Stollberg in the Hartz, and Schenmitz in Hungary.


The colour of red antimony is a deep crimson approaching to blood red, sometimes, though seldom, clouded with irid-fenton blue. It occurs generally in minute short hair, or needle-form crystals, radiating or implicated: sometimes also it is found massive or dillematious. Its lustre is vitreous, little shining. Its fracture is fine, and irregularly diverging fibrous. It is opaque, brittle but somewhat elastic: fp. grav. 4 to 4.7.

Before the blowpipe it melts easily and evaporates, exhaling a slight sulphurous odour.

The only mineral with which it is liable to be confounded is the red filky oxyd of copper: this last, however, is of a brighter colour, and diffuses with effervescence in nitrous acid, giving it a green tinge; the red antimony, on the contrary, is not diffused, but becomes covered with a whitish crust. No accurate analysis has yet been made of this ore; from its colour it was formerly supposed to contain arsenic and sulphurated antimony: according to Ege, however, it is a native mineral kermes. This much is certain, that it is met with in the crevices, and involving the surface of the common sulphurated antimony, and appears to be this in an advanced state of natural decomposition: the amorphous or massive variety is frequently fledded with small crystals of native sulphur, in the form of rhomboidal octahedrons.

It is met with at Braunford in Saxony, Malazka and Cremzitz in Hungary, and Allemont in Dauphine.


The colour of white antimony passes from snow-white through greyish and yellownish white into ash grey. It is seldom found massive, often radiating like zoelites, but generally crystallized in small and long quadrilateral prisms or rectangular tables, which are accumulated together in bundles or cells. The surface of the crystals is plain, or longitudinally striated, and bright shining or specular. Internally this mineral is much shining, or shining with a vitreous lustre passing into pearly. Fracture flat. It flies when broken into irregular, not particularly sharp-cornered fragments. It is translucent, soft, brittle, and heavy.

In whole crystals it decrystallizes before the blowpipe; but when powdered, it melts quietly and without difficulty, giving out a white smoke, and by degrees totally evaporates. Between two coal it is reducible to the metallic state.

From the analysis of Klaphroth, it seems to consist of antimony and muriatic acid; but the accicular variety from Dauphine afforded Vaquelain, 80 oxyd of antimony, 3 oxyd of iron and oxyd of antimony, 8 flex, 3 100.

This beautiful, but uncommonly rare fossil, was first discovered in 1781, by Mongez the younger, at Allmont in Dauphine, mixed with native antimony: afterwards, in 1787, by Rörsler at Pratram on the surface of galena: it occurs also at Malazka in Hungary, with the red and sulphurated antimony.


The colour of this is orange or wax yellow, or yellownish white, passing into black when tannished. It occurs in long striated needleform crystals, or quadrilateral tables. It is shining, and when black has a metallic lustre. Is soft, flexible, and heavy.

Before the blowpipe it neither flames nor smokes, but melts easily into a brittle flag, containing a small tin-white lead
head of metal. It is not been analyzed. This mineral
was first discovered by Count Radomawsky, in a vein of ful-
phated antimony at Firegaj in Saxoy, and has since
been found at Malazka in Hungary.
Sp. VII. Antimonial ochre. *Sphatifikser, Germ. Ant-
minum ochreum, Werner.*
its colour is dark or lemon yellow, and yellowish grey.
Occurs plentifully determined or intermixed. Is solid; of a
fine earthy fracture; soft, brittle, and heavy.
Before the blowpipe it becomes white, volatilizes, but
does not melt. It diffuses strongly with borax, and is
partially reduced. It has not yet been analyzed, but is sup-
posed by Karden to be an oxyl of antimony.
It is found at Binsbergh near Freiberg, and in Hun-
gary, mixed with fulphated and red antimony.
Delhie, *Crystallographie,* vol. iii. Kirwan's *Mineralogy,*
vol. iii.
All the antimonial ores are easily reducible before the
blowpipe on charcoal; and by a continuance of the heat,
they exhale a dense smock of a white or yellowish colour,
with little or no arsentic colour, and deposit yellowish
flowers, or white needleform crysals on the surface of the
charcoal: these appearances are, however, liable to con-
iderable modification on account of the variable proportion
or lead, arsenic, sulphur, &c. that are usually mixed with
the antimony. A more certain, therefore, though not so
expeditious a method of ascertaining the presence of this
metal, is to reduce 200 grains of the ore to fine powder,
and digest it in a moderately diluted nitric acid, in
which the nitric is not more than one-third of the mu-
ritic part. The clear liquor, after flow digestion for an
hour, is to be decanted and reduced by evaporation to
about half its bulk, and then poured into a large quantity
of distilled water: a copious white precipitate immediately
takes place of antimonial oxide, which when edulcorated
and mixed with an equal weight of crude tartar, is to be
put into a small lined crucible fitted with a cover, and by a
moderate red heat the oxide will be reduced into a metallic
button.

The analysis of antimonial ores presents no particular
difficulties, except such as are common to all minerals in which
arsenic enters. The following are the substances which have
been found mixed with antimony, viz. iron, silver, lead,
copper, arsenic, and sulphur, to which must be added, iron,
and alumina, as composing the flinty gangue, which cannot
always be entirely separated previous to analysis.

(a) Let 500 grains of the ore be reduced in an agate
mortar to an impression powder, and afterwards mixed in a
flask with 1000 grs. of pure nitric acid of sp. gr. 1.25, and
1000 grs. of distilled water; digest the mixture at a tem-
peratures of 50° less than boiling, for half an hour, then pour
off the clear liquor, and add nitric acid equal to half the
quantity first used: digest this for a few minutes, and add
by degrees, during the remainder of the digestion, half as
much distilled water as acid; then pour off the clear liquor,
and wash the residue with distilled water.

(b) Add together the two nitric solutions and the
waithings, and drop in a satured solution of muriated soda
as long as any precipitate takes place, and allow it to stand
for a few hours; pour off the liquor, and boil the precipi-
tate in a little distilled water; filter and edulcorate. Add
the waithings to the liquor.

(c) The precipitate (b), consisting of muriated silver,
and probably a little arsenic, being dried in a heat just inferior
to its fusion, is to be weighed, and reduced in a small crucible
by twice its weight of pearl ash: 75 parts of silver denote
100 of muriated silver, and if the produce of metal is less
than that obtained by calculation, the deficiency may be let
down as arsenic.

(d) The nitrous solution (e), containing a great excess
of acid, is to be reduced to only a slight excess by the addi-
tion of potash or soda; and is then to be treated with
muriated barites for sulphuric acid: the sulphate of ba-
rites thus produced, contains the sulphur of the ore oxy-
generated by the nitrous acid. This being separated, add a
satured solution of muriated soda, as long as any precipi-
tation takes place. This is sulphated lead.

(e) The residue of solution (d), being evaporated to
dryness, is to be mixed with soap, and heated in a sub-
liming flask, the arsenic will thus be obtained in a metallic
state.

(f) Upon the insoluble residue (a) digest two or three
ounces of nitric-muriatic acid, composed of nitric acid 1,
muriatic acid 5; water 3. By this the antimony, iron, and
sulphur will be dissolved, together with a little alumina and
sulphate. Separate this from the undissolved residue, and pour
the liquor into three or four times its quantity of distilled
water, and the oxyl of antimony will be precipitated. Se-
parate this by filtration, wash, and add the waithings to the
other liquor: 130 parts of oxide of antimony well dried
denote 100 of metal.

(g) Evaporate the fluid (f) to a small bulk, and super-
flurit a little with caustic ammonia, the iron and earths will be
precipitated, and the copper will be held in solution, giving
it a blue colour. Separate the precipitate by a filter; and
add sulphuric acid to the ammoniacal liquor till it becomes
acidulous, then precipitate the copper by a bar of clean
iron.

(h) The precipitate (e) being digested with a little caustic
potash, the flux and alumina will dissolve, leaving the
oxyl of iron behind.

(i) The undissolved residue of (f) being dried and
weighed, is to be ignited to drive off the sulphur, the
quantity of which is denoted by the loss of weight after
ignition. What remains is earth and a few atoms of met-
als, oxide, which being fused with black flux, will reduce
the oxide, and render the earths soluble in water.

(j) The sulphate lead (d) is to be reduced by fusion with
tartar, and the oxide of antimony also by the same method:
being then weighed separately, as much pure lead is to be
added as will make the lead twice the weight of the anti-
mony. The metals being melted together are to be divided
into two equal parts, and subjected to copellation; if any
silver remains, its amount is to be added to that of (c).
Bergmann's *Erfig. Klaproth's Analytical Essays.* Kirwan's
*Mineralogy,* vol. ii.

§ 3. Reduction of Antimonial Ores.

The grey or sulphurated antimony is the only one of this
metal that is found in sufficient abundance for the purpo-
ses of manufacture, and the treatment that it undergoes
is extremely simple. The larger pieces of the earthy or stony
matter of the gangue being first picked out, the remainder is
coarsely bruised, and subjected to a low red heat in close
vessels: the sulphurated metal then melts on account of its
very easy fusibility, leaving the impurities behind. This
proces is usually performed in a crucible, whose bottom,
perforated with a number of small holes, is inserted into an-
other
other crucible. (See Chemisty, Plate iv.) A B, Fig. 15, or connected with the lower crucible by means of a pipe, Fig. 16. In each apparatus the ore is put into the upper crucible, which serves the purpose of a filter, by detaining the flaky impurities, while the melted metal flows into the lower receptacle. Fig. 17, 18, 19, 20, 21, 22, are plans and sections of the furnaces generally made use of. This method, however, of extracting the ore is far from being the most economical possible, on account of the length of time necessary to charge a multitude of crucibles, the expense of replacing those that are broken, and the extra quantity of fuel required when the ore is not in immediate contact with the flame. On this account some of the founders in Hungary and France have altogether discarded the crucibles, and melt the antimony in masses by a reverberatory furnace, taking care to keep the surface of the metal covered with charcoal to prevent oxidation. Fig. 23 and 24 are a plan and section of such a furnace. The rough ore being placed in the bed A, and covered with charcoal, is gradually brought to a state of fusion; and the slug at B being then withdrawn, the melted metal flows into the receptacle C. Fig. 25, 26, represent another kind of furnace for the same purpose made use of at Ramée in La Vendée. The sulphurated antimony thus obtained is remelted, and cast into loaves or cakes, forming the common crude antimony of the shops.

§ 4. Regulus of Antimony.

The sulphurated ore of the preceding section having been long known by the name antimony, the term regulus of antimony was employed to designate the pure metal: in the reformed nomenclature, on the other hand, the former of these substances is called sulphuret of antimony, and the latter simply antimony. This ambiguity is of consequence to be aware of, and we shall endeavour to avoid it as much as possible by using the term regulus of antimony wherever by so doing the sense may be made clearer.

The substance from which the regulus is prepared, whether in the large way for the purposes of commerce, or in the laboratory, is universally the native sulphuret. This consists of antimony and sulphur in the proportion, according to Bergman, of 74 of the former to 26 of the latter. Numerous methods have been proposed by different chemists for the separation of the metal, all of which may be conveniently arranged under the three following general heads. 1. Reduction by roasting. 2. Reduction by incipient fusion. 3. Reduction by dry parting or precipitation.

1. Reduction by roasting.

The native sulphuret of antimony being previously separated by fusion from all earthy impurities, as described in § 3, is to be pulverized and spread thinly on the floor of a reverberatory furnace or muffle, to be freed from its sulphur by roasting. At the commencement of the process the fire must be managed with particular care, and the temperature ought scarcely to be greater than what is necessary for the fusion of tin, otherwise the antimony will clog, and even melt, so as to require being removed from the fire, and again pulverized: as soon as the fumes of sulphur become visible to the eye, in the form of a light lambent blue flame, it is a proof that the heat is sufficient; and the ore should now be continually stirred with a tobacco-pipe, or any other earthen rod. In a short time the antimony will begin to oxide, and assume a greyish earthy appearance; the fire may then be raised a little, to halt the evaporation of the sulphur; and thus the operator may go on gradually increasing the heat as the ore will bear it; and continually flaring it, so as to expose fresh surfaces to the air. When the ore is moderately red-hot, and ceases to give out a fulminating vapour (which will not be till after some hours), the roasting is finished. By this means an all grey oxyd is obtained; till, however, not entirely free from sulphur, weighing from 30 to 36 per cent. less than the original sulphuret.

In order to obtain the regulus from this grey oxyd, the common way is to mix it with half its weight of crude tartar, and expose it in a covered crucible to a full red-heat; the tartar will thus be decomposed, its carbonaceous part serving to deoxygenate the antimonial oxyd; and its alkaline base combining with the sulphur still contained in the ore, forms sulphuret of potash, by which a portion of antimony is held in solution, while the rest of the regulus, by its superior specific gravity, settles into a mass at the bottom of the crucible. The quantity of regulus obtained by this means in the large way is, from 60 to 70 per cent. on the oxyd; but the produce depends essentially on the accuracy with which the roasting has been performed: if much sulphur still remains in the oxyd, a large proportion of the metal will be diffused in the sulphurated alkaline copper. Kunkel's method appears to be more economical, and better in every respect: he mixes the roasted oxyd with an equal weight of sulphur and a little powdered charcoal, puts the mixture into a crucible to melt, and as soon as the regulus begins to flow itself, injects by degrees some powdered nitre, in the proportion of an ounce to a pound of antimony: the matter in thin fusion being poured out, a pure regulus is obtained in much greater quantity than by the common way. Most of the sulphurated ores, as those of lead and copper, are reduced to the metallic state after roasting by a simple carbonaceous addition, by which means the product of metal is greater than if an alkaline flux was made use of, and the whole expense of the flux is saved. Induced, therefore, by these motives and analogies, a series of experiments was undertaken by Haffenratz, Vauquelin, and Buillon la Grange, to obtain the regulus of antimony by cheaper means than the use of tartar or nitre. For this purpose different parcels of the roasted grey oxyd were mixed with charcoal powder, with tallow and with pitch, and exposed in covered crucibles to a reducing heat; being then withdrawn, and the contents of each examined, nothing was found in the crucibles but a little carbonaceous matter, and a few minute globules of antimony, the red being evaporated. Some grey oxyd was then mixed with 1. equal parts of lime, alumine, and glass; 2. equal parts of sulphur of barytes, chalk, and clay; 3. with common salt; 4. with sulphur or soda; and the materials being strongly heated, they were all found converted into yellow glasse, but not a particle of regulus could be perceived. The above four mixtures, with some charcoal rubbed up into them, were next treated as before: vitreous scoriæ were obtained, but no greater quantity of regulus than when charcoal alone was made use of. Lastly, some of the same grey oxyd being fluxed with half its weight of tartar, yielded a perfect button of pure antimony. Hence it appears, that potash, and probably alkalies in general, exert some specific action on antimonial oxyd, which induces it to become much more fixed while converting into regulus, than when more carbonaceous matter is employed.

II. Reduction by incipient fusion.

This, although the most expensive and inaccurate method of procuring the regulus of antimony, is generally preferred in the laboratory to every other on account of its expedition. For this purpose the antimonial sulphuret is reduced to a fine powder,
powder, and mixed with nitre and tartar; a crucible being then made red hot, succeffive fcools of the mixture are gradually projected into it till the velf is nearly filled; being then covered, and a full red heat applied for half an hour, the contents are either poured out into a greased iron cone, or suffered to cool in the crucible: a pure regulus is thus obtained, covered with a mafl of fulphuret of antimony. In this process the acid of the nitre is decomposed, and is employed in acidifying the fulphur and partly oxidizing the antimony, while the carbonaceous matter of the tartar serves to de-oxidize the metal, and in some degree also to decompose the fulphuric acid; hence the fcorie confit of the potash of the nitre and tartar, partly united with fulphuric acid, forming fulphat of potash, and partly with fulphur, forming fulphuret of potash, which lafl also holds in solution a con- siderable proportion of the antimony.

If the quantities of nitre and tartar are large compared with that of the crude antimony, nearly the whole of the metal will be taken up by the fcorie. According to Lemery, sixteen ounces of sulphurated antimony, mixed with the fame weight of nitre and allof tartar, yielded no more than five ounces and a half of regulus. Whereas sixteen ounces of crude antimony, twelve ounces of tartar, and fix ounces of nitre, afforded fix ounces and one dram of regulus. The usual proportions are four parts of crude antimony, with three parts of tartar, and one and a half of nitre. Some advice to detonate the nitre and tartar together, before the antimony is added, but this is decidedly a bad way, as the ufe of the nitre is not to alkalinize the tartar, but to oxygenate the fulphur. A greater proportion of regulus than usual would probably be obtained by mixing the antimony and nitre alone, and not adding the tartar till after the detonation had taken place.

III. Reduction by precipitation.

This is efected by fusing the antimonial fulphuret with any other metal whose affinity for fulphur is greater than that of antimony, in which cafe the fulphur combines with the added metal, while the regulus of antimony collects in a button at the bottom of the crucible. The metals capable of thus decomposing the fulphurated antimony are iron, copper, lead, filver, and tin, whence originated five varieties of antimonial regulus, known among the alchemists by the names of marten, venereal, faturine, lunar, and jovial. As equal parts of these metals require different quantities of fulphur for their faturation, a greater or less proportion of them is necessary for a given weight of crude antimony: thus two parts of this fablilance are decompofed by one part of iron, by two parts of copper, or by four parts of lead.

In order to prepare the martial regulus (for all the others are now became obfolute), a number of formulæ are given by Lemery, Beaufé, and other practical writers, the relative merits of which can only be duly appreciated by a comparison of the quantity and purity of the regulus with the expense of time, of fuel, and of nitre, required in its preparation. The following are thofe which seem belt worth notice:

1. Take eight ounces of horseshoe nails, and heat them nearly to whitnefs in a crucible, then add, by degrees, fifteen ounces of coarfeely pulverized antimonial fulphuret; cover the crucible and keep up the fire; in a few minutes the mixture will be in perfect fution, at which time, add little by little, three ounces of nitre, a flight detonation will take place, and the whole will be brought to a rate of perfect fution; then pour it into an iron cone, heated and greafed, and strike the fides of it gently as the mafla becomes solid to favour the precipitation of the regulus. When cold it will be found to confift of a button of antimony, weighing about ten ounces, covered with an alkaline ferrugineous fcorie, from which it is readily separated by a blow with a hammer. This regulus, however, is far from pure, containing both iron and a little fulphur; it is therefore to be remelted, and mixed while in fution with two ounces of crude antimony and three ounces of nitre; after all detonation has ceased, pour it into an iron cone as before, and separate the regulus from the fcorie. Remelt the regulus and project upon it by degrees three ounces of nitre. Separate this regulus from the fcorie, and melt it again once more with three ounces of nitre; heat it strongly and rapidly, and pour the whole into a cone; there will be obtained about eight ounces of a beautiful flattered regulus, covered with yellow white fcorie. In this process the whole of the materials employed are eighteen ounces of crude antimony, eight ounces of nails, and twelve ounces of nitre; four separate fusions are required, and the product is eight ounces of regulus.

2. Pulverize and mix together 16 ounces of crude antimony, 12 ounces of tartar, 10 ounces of nitre, and eight ounces of iron filings; project it by degrees into a red hot crucible, a strong detonation will take place, and the mafla will enter into fution; keep it at a full heat for a few minutes, and then pour the whole into an iron cone; when cold, there will be found beneath the fcorie a pure flattered martial regulus, weighing about fix ounces.

3. Heat in a crucible till they are white hot, five ounces of horseshoe nails, and then add 16 ounces of crude antimony, coarfeely pounded; the two will prefently melt down together, and as soon as the mafla is in very liquid fution, project it at several times one ounce of pulverized nitre; during each projection there will be a detonation, and when the falt has ceafed, increase the heat for a few minutes, and then take out the crucible and allow it to cool gradually; there will be found at the bottom of the velf a perfectly pure martial regulus.

In the reduction of antimonial fulphuret by iron, the fuccifes of the experiment depends much upon the tempera- ture; a high heat briskly applied, and of fhort con tinuance, so as to bring the whole into very liquid fution, is far pref- erable to an inferior heat of longer continuance: since the regulus separates more completely from the fcorie, and the proportion of metal, lost by evaporation, is not nearly fo confiderable.

The antimony obtained by roasting or fcorification, by proper care, may be rendered absolutely pure; but the martial regulus, though purified fo as to exhibit the flattered appearance on its surface, which is ufually reckoned characterife of purity, is, in fact, an alloy of antimony and iron; hence it is harder and more difficultly amalgamable than the former; and when reduced to fine powder, fo, according to Lemery, attracted by the magnet.

§ 5. External Characters and Physical Properties of Reguline Antimony.

This metal, when perfectly pure, is of a dusky white colour, between that of tin and iron; it appears to be ab- solutely deftitute of ductility, and may easily be reduced in a mortar to a fine powder; it is moderately hard, and may be cut without much difficulty by a common knife. Its fusibility is not quite fo great as that of zinc, since it requires to be made red hot before it flows. Its specific gravity, according to Bergman, is 6.86; but by the later ex- periments of Brillon, amounts to 6.702. Its fracture is usually broad foliated, but sometimes the facets are fo minute as to give it almost a granular appearance; in general the flower it is cooled, the broader will be the plates of which it
ANTIMONY.

is composed, but this rule is not without its exceptions. Antimony is one of the most easily crystallizable of all metals, and this tendency is shown in a striking manner by the appearance of a radiated flar, or of pincontinued leaves, like those of fern, with which the convex surface of a mass of antimony that has been allowed to cool slowly is generally covered. It was this circumstance that induced the alchemists to pay so much attention to antimony; by their heated imaginations every thing singular was considered as a type or mysterious hint, and thus confounding farce with profane, they denominated this appearance, which in truth is only the result of a confined crystallization, the eastern flar that was to conduct the fages (themselves) to the cradle of their king, i.e. to the method of making gold, the king of metals. These rays or branches are merely superficial as Lemery demonstrated, by making transverse sections of various masses of tangled regulus. If a crucible, furnished with a plug at the bottom is filled with melted antimony, and the fluid part allowed to run out by withdrawing the plug as soon as a crust is formed on the surface of the metal, there will be found under the crust various crystalline groups, consisting of cubes, of lengthened rectangular parallelepipeds, or ramifications, made up of small octahedrons implanted in each other, and frequently aggregated into a trihedral pyramid, with furrowed faces. The primitive crystalline form of antimony has hitherto eluded the sagacity of Hanx: it is divisible at the same time parallel to the faces of a regular octahedron, and of a rhombohedral dodecahedron.

§ 6. Oxides of Antimony.

The action of air and moisture at the usual temperature upon reguine antimony is scarcely perceptible, as it remains a long time without even tarnishing, and the oxidation is never more than merely superficial. By a low red heat, however, and the contact of air, this metal is gradually converted into a greyish white oxied, volatile at a higher heat, and capable of being more completely oxygenated. When antimony is brought quickly to a bright red heat, and then exposed to the air, it is rapidly converted into a white oxied, which being volatile, exhales in the form of a dense smock from the surface of the melted metal, and condenses in the upper and cooler part of the crucible into beautiful, needle-like crystals of a snowy or silverly white, which have obtained the name of argenteous flowers of antimony, or snow of reguine antimony. As this crystallized oxied is not easily obtained in a common crucible, we shall mention the method of preparing it as given by Beaune. Place a wide cylindrical earthenware tube closed at one end in a wind furnace, in that it shall remain in a flasking direction, with the open end protruding a little way through a hole or door in the side of the furnace; and to prevent the ascent of the tube from being too much cooled, an earthenware flopper must be prepared to fit loosely into the open mouth of the tube.—The apparat being properly put together, light the fire, and when the bottom of the tube is red hot, introduce the antimony in small pieces, and close the mouth of the tube with the flopper. The metal being melted, will begin in a short time to smock, and the crystalline oxied will be deposited in the upper part of the tube, from which it may be scraped from time to time with a clean iron spoon. The first portions are generally yellowish on account of a small quantity of sulphur contained in the metal; this, however, is soon burnt off, and the succeeding flowers are of a pure brilliant argenteous white colour. Although antimony is not combustible at so low a temperature as zinc, yet, at a white heat, with access of air, it burns with a white flame, throwing out copious vapours of white oxied. Another pretty experiment on the inflammation of antimony, was disco- 


VOL. II.
tion. In its eager absorption of oxygen, a great analogy subsists between antimony and tin; for not only the nitric acid, but even the water that is mixed with it, are decomposed by the antimony; the azot of the former, and the hydrogen of the latter of these fluids, combine together during their nacent state, and produce ammonia, which with the undecomposed acid, forms nitrate of ammonia, the crystals of which fall, thus unexpectedly occurring, have sometimes been mistaken for nitrat of antimony. If the white oxyd, resulting from this chemical action, is mingled, before it has been washed, with lime or caustic alkali, ammoniacal gas will be diffused. The greatest part of the antimonial oxyd remains unconsumed at the bottom of the vessel; a very small quantity, however, is taken up by the supernatant acid; but even this little is precipitated by water, by evaporation, and by mere standing for a few days. The white nitrous oxyd is fully saturated with oxygen, of which it contains, according to Thénard, about 30 per cent. It is considered as one of the most refractory and irreducible of the metallic oxids, which it certainly is when treated with the common fluids; but when rubbed with a little regulus of antimony, and heated in a close vessel, it becomes in succussion yellow, orange, brown, and then black; containing only about two per cent. of oxygen, as is related of the argentum flowers in the former action.

4. Muratic acid, when affixed by heat, is capable of dissolving a small proportion of antimony; part of this, however, is again deposited in the form of a white oxyd as the liquor cools; by evaporation it may be brought to crystallize in small acicular deliquent needles. The oxyd of antimony is more easily soluble in muriatic acid than the metal itself, and also in greater proportion; it crystallizes, according to Monnet, in brilliant plates, like the boracic acid, and is decomposable by water.

5. The oxygenated muriatic acid, when in the form of gas, exerts a very striking action on reguline antimony; if this metal, previously reduced to a fine powder, is thrown by small quantities at a time into a vessel filled with the acid gas, each parcel will be found to take fire, and burn with a white flame, throwing out, at the same time, a number of bright sparks, and thus forming a molten beautiful shower of fire. The antimony is converted into a white muriated oxyd. The liquid oxymuriat acid changes the metal into a powdery oxyd, but holds a very small quantity, of it in solution; no doubt on account of the great proportion of water, which even the most concentrated liquid oxymuriatic acid necessarily contains. If a solution of either the muriat or oxyniat of antimony be gently evaporated nearly to dryness, and afterwards exposed in a retort to a low sand heat, a thick oleaginous liquid will come over, that by cooling concretes into a soft mass, called, from its consistence, by the ancient chemists, butter of antimony: the above, however, is not the actual method of preparing this salt in the laboratories; it is more expeditiously made by taking advantage of the superior affinity which antimony has over mercury: for this purpose some reguline antimony is well mixed in a mortar with twice or two and a half times its weight of oxymuriated mercury (corrosive sublimate); during trituration, much heat is extricated, the evidence of chemical action between the two substanacies; the mixture being put into a wide necked retort, with a suitable receiver adapted, is exposed in a sand bath to a gentle heat. During the first half hour, a small quantity of a clear liquid passes into the receiver, which is afterwards followed by a thick liquor that concretes by cooling in the receiver, and often in the neck of the retort into a white mass; this is the butter of antimony. A moderate fire is kept up till nothing more comes over, at which time the receiver is unlidded, and emptied of its contents; there remains in the retort fluid mercury with some muriated oxyd of antimony. By continuing the distillation at a greater heat, the mercury is volatilized, and collected in a liquid state in the receiver. It is to be remarked, however, that there are two objections to this process; the one, that if the mercural salt is in too great proportion, a little of it will rise with the butter of antimony, and be diffused in it; the other objection is, that if too little oxymuriat is used, the produce will be much diminished, as a considerable proportion of the antimony will be merely in the state of muriated oxyd. The bell way, therefore, of preparing this salt, is to mix the unwashed sulphat of antimony ($\text{I. }\frac{7}{12}$) with common salt and black manganece, and distill the whole to dryness.

The London Pharmacopoeia orders the sublimed muriat to be made thus. Mix together one part of crowns of antimony with two parts of decrepitated salt; put the mafs into a glass retort, and add one part of sulphurac acid; then distil, and what comes over is buter of antimony.

Butter of antimony, though solid at the usual temperature of the atmosphere, liquefies at a very gentle heat, and by slow cooling crystallizes in large parallelepipeds. It is intensely caustic, destroying the organization both of animal and vegetable substances; by exposure to the air and light it becomes coloured, and deliquesces into a thick oleaginous fluid. When dropped into distilled water, it is for the most part decomposed, and a copious white precipitate is thrown down, which is little else than a perfect oxyd of antimony. This, after being washed and dried, forms the poswer of algaroth, or mercurius vitae. The clear liquid separated from the precipitate still holds a little antimonial oxyd in solution, as is obvious from a further precipitation taking place on the addition of an alkali.

Scheele has given the following method of preparing powder of algaroth, in an essay of his on this very subject. To two parts of sulphurated antimony add three of nitre, and detonate the mixture in a hot crucible; pulverize the mafs, and fill in one part of this to three of water, with one of sulphuric acid, and one of common salt. Let the whole digest together for twelve hours in a sand bath, and strain it through a cloth; separate the clear liquor, and add to the residue more salt and diluted sulphuric acid, which digest and filter as before. Mix the two liquors together, and pour them into a large quantity of boiling water; a white precipitate immediately takes place, and this, when washed and dried, is the powder of algaroth.

If to any quantity of sublimed muriat of antimony an equal weight of nitric acid is added, the liquor becomes highly coloured, copious orange-coloured fumes are difgaged, and a considerable degree of heat is excited; after a while, a white magma of oxyd is deposited. If before the latter effect takes place, the liquor is evaporated to dryness, a pure white oxyd remains behind; and this being three times more subftracted with fresh nitric acid, and afterwards heated moderately red in a crucible, affumes the appearance of a pulverulent mafs, white at the surface, and rose-coloured beneath; this being ground in a mortar, so that the white and coloured parts may be thoroughly mixed, is known in the shops and old pharmacopoeias by the name of becar mineral; and, in fact, is nothing more than a perfect oxyd of antimony, holding, perhaps, a very small portion of the acid.

6. Nitro-muriatic acid is the best solvent of reguline antimony; if the acid is made moderately warm, and the metal put in by small pieces at a time, taking care not to add
ANTIMONY.

add a second till the first is completely dissolved, it may be thus charged with a considerable proportion of antimony, only a small part of which is deposited by cooling. This, however, like all the preceding antimonial solutions, is almost wholly decomposed by the addition of distilled water.

A piece of iron or zinc also causes a precipitation of a black oxyd (§ 6.), almost in the metallic state, which, according to Theurs, when dried at a low temperature, acquires the properties of a pyrophorus, inflaming spontaneously by contact with the air.

1. The fluoric, boracic, and carbonic acids, have no action on reguline antimony; they are capable, however, of combining with its oxyds, forming salts, the particular properties of which have not been examined.

2. The action of all the metallic acids on antimony, except the arsenic acid, is wholly unknown: and for this see Arseniát of Antimony.

3. The vegetable acids produce no other effect on metallic antimony, except blackening its surface; they dissolve, however, its oxyds without much difficulty, forming salts, a few only of which have been properly examined: these shall proceed to particularize.

4. The antimonated tartar, or emotic tartar, is the most important of the combinations of antimony with the vegetable acids. It was first prepared by Adrian Mynheer, in 1651; and from that time to the present, has attracted the notice of chemists and physicians. Bergman, in his admirable essay on Emetic Tartar, was the first who gave any thing like a confident account of the rationale, and the various chemical affinities concerned in its preparation; and the subject has of late been finally elucidated by the able and fragrant experiments of Theurs.

5. The tartaric acid, the acidulous tartarite of potash (or cream of tartar), and the tartarite of potash (soluble tartar, or tartarized tartar), are each capable of dissolving and combining with oxyd of antimony; an inquiry, therefore, into the chemical properties of emotic tartar, necessarily includes the consideration of the above different ingredients, and thus renders it a very complicated affair.

6. Pure tartaric acid and boiling water, digested on any of the oxyds of antimony, except that which is satured with oxygen, as the diaphoretic antimony, may be made to take up one-third or one-fourth part of its own weight; and the solution, when concentrated by evaporation, and allowed to cool gradually, usually deposits a few crystalline grains, but is for the most part converted into a brownish gelatinous mass, which, at a red heat, is charred, and the antimony contained in it is partly extirpated in the form of a white smoke, and partly reduced to metallic grains.

7. A solution of tartaric of potash, at a boiling temperature, takes up at least as much oxyd of antimony as tartaric acid is capable of dissolving; the liquor becomes slightly alkaline, and upon evaporation, yields a number of crystalline grains.

8. A solution of tartaraceous acid, or cream of tartar, being boiled with any of the simple oxyds, or sulphurated oxyds of antimony, dissolves a considerable quantity; and by evaporation and cooling, deposits elongated octahedral crystals of emotic tartar.

9. The taste of this triple salt is slightly harsh and metallic; it reddens vegetable blues; it effloresces in the air, loses its transparency, becomes of a dead white, and is then pulpulent; it requires for its solution about 30 times its weight of boiling water, and expires in a cloud at the common temperature. Sulphuric acid precipitates from it a sulphated oxyd of antimony, leaving the cream of tartar pure; the alkalies, both pure, and carbonated, decompose it in part only; a loose white oxyd being precipitated by the first, and by the second, a carbonated oxyd, which, in a short time, crystallizes in the form of divergent rays. If either tartaraceous acid, or tartarite of potash, is added to the solution of emotic tartar previously to pouring in the alkali, there will be no precipitate; for the tartarite of potash produced by the alkaline addition, or already existing in the fluid, immediately dissolves the antimonial oxyd; and for the same reason, a simple solution of emotic tartar cannot be wholly decomposed by any quantity of alkali; and hence probably have arisen the great seeming differences in the proportion of its constituent parts, as the salt has been analyzed by means of a pure alkali, a carbonated alkali, or other re-agents. According to Theurs, the cryllals of emotic tartar, from whatever antimonial oxyd they are prepared, and whatever has been the proportion of ingredients employed, contain in a given weight precisely the same quantity of antimony, of tartaraceous acid, of potash, and water; and even the degree of oxydation of the metal is also invariable. His method of analyzing this salt, is first to ascertain its water of cryllallization, by drying in a heat just not sufficient to decompose it; secondly, to diffloge the emotic tartar, and precipitate the antimony by sulphurated hydrogen; thirdly, to ascertain the tartaraceous acid from dropping in acetate of lead; fourthly, to determine the quantity of potash by igniting the residue, and extraling the alkali by dilute nitric acid. By a very careful analysis, conducted in the above manner, he found 100 parts of emotic tartar to contain 38 oxyd of antimony, 34 tartaraceous acid, 10 potash, and 3 water, besides 4.6 parts. But the tartaraceous acid, which supplies both the acid and alkali to the emotic tartar, contains 57 tartaraceous acid, 33 potash, and about 10 water and lofs; or 70 tartarite of potash, and 20 tartaraceous acid in excess. Hence it follows, that there is a greater excess of tartarite of potash in cream of tartar over the acid, than exits in the emotic tartar; and this excess of tartarite of potash is found in the mother water, in which the cryllals of the emotic are decomposed; when, therefore, the whole is evaporated to dryness, as it is often the case in the preparation of emotic tartar, there is a portion of antimonated tartarite of potash superadded, which, no doubt, modifies its effect, and produces variations, which are unjustly charged to the emotic tartar. Another objection to evaporating the whole mass to dryness without separating the cryllals, is, that the tartarite of lime which exits in a variable proportion in all cream of tartar, according to Vaquelin, is also mingled with the antimonial salt, and weakens its operation. To make, therefore, emotic tartar uniformly of the same strength, select an antimonial oxyd somewhat below the maximum of oxydation, and digest it in a hot saturated solution of cream of tartar, taking care that the oxyd shall be rather more than enough to sature the salt (if the grey oxyd from the sulphur of antimony is made use of, or even the common glasses of antimony, as these are not already sufficiently oxydated, there will be a decomposition of water, and a small quantity of kermes will be formed); when the liquor refuses to take up any more antimony, filter and evaporate till a pellicle begins to be formed; allow the solution to cool, and select all the octahedral and tetrahedral cryllals that are deposited; wash them in cold water, and again diffloge in hot water, and cryllallize. For the particular formula of the different pharmacistias, see § 12.

11. The only remaining antimonial salts of any consequence, are the oxalat and acetite of antimony; and we are as yet acquainted with very few particulars even concerning these. The oxalat of antimony is readily formed, and concretes into small crystalline grains; these are soluble in wine, giving it an emotic quality; and this preparation has been
A N T I M O N Y.

been used by some medical men instead of the common antimonial wine. The acetate of antimony being known before the discovery of emetic tartar, was recommended for the same use to which the former is now applied, by Angelo Sala. Neither the oxalate, nor the acetate, however, of this metal appear to be possessed of any superiority over the emetic tartar, and are now, we believe, wholly disused.


Muriaut of soda is said to be in part, at least, decomposable by antimony at a red heat; but the experiments on this subject are contradictory, and require to be performed afresh with care and exactness.

Sulphat of potash (and probably all the alkaline sulphates), is decomposed without any difficulty. This was first shown by Monnet: he fused together in a crucible two parts of sulphated potash, and one of antimony; the metal disappeared, and he obtained a yellow, semi-vitrified mass, intensely caustic, of antimoniated sulphuret of potash; which, when washed with warm water, depolished, by cooling, a hydro sulphuret of antimony. The metal, therefore, in this case, became oxidized at the expense of the sulphuric acid; and the sulphuret of potash resulting from this combination with the metallic oxide, rendering it partly soluble in hot water.

Oxymuriat of potash has a very powerful action on antimony, as it has indeed upon all the easily combustible metals: if equal parts of this salt, and antimony previously reduced to a fine powder, are mixed together, and triturated briskly on an anvil, or any suitable hard body, a remarkably loud and vehement detonation takes place: if the mixture, instead of being triturated, is poured into sulphuric acid, or rather if the acid is poured upon the powder, a hissing noise is produced, red sparks are emitted, and the metal is converted into an oxyd.

Nitre and antimony, in equal parts, or two parts of the former to one of the latter, being thrown into a red-hot crucible, detonate with a vivid flame, the acid of the nitre is decomposed, and the metal is completely oxidized. The white mass remaining in the crucible being pulverized and digested in hot water, is separated into two parts, one soluble, and the other insoluble: the latter of these was formerly considered as a pure oxyd of antimony, but Thuemars has shown, that it contains about one-fifth of potash, intimately united with the oxyd, which appears to act the part of an acid: it was formerly known by the name of reguline diaphoretic antimony, but appears, in fact, to be a kind of antimoniate of potash, rendered insoluble by an excess of oxyd; the soluble part differs from the other merely in the proportion of its ingredients, being an antimoniated potash, crystallizable and decomposable, with precipitation of its oxyd, by any of the metallic acids. As, however, this is generally prepared from the sulphuret of antimony, we shall refer the reader for further particulars to the next section.


1. Sulphuret of antimony may be prepared artificially, by pulverizing a pound of reguline antimony, and mixing with it eighteen ounces of flowers of sulphur; this being put into a crucible, and brought to a low red heat, melts into an uniform mass, of the weight of about two pounds, which, when cold, exhibits a frizzed appearance, exactly similar to the native grey sulphuret (§ 3.), and is possessed of all the same physical and chemical properties; hence, for cheapness fake, all the preparations from the antimonial sulphuret are made with the native ore, just separated by fusion from the flory and earthy matters that it is mixed with, which is known in commerce by the name of crud antimony, or antimony of the flours.

2. If the sulphuret of antimony is exposed to a red heat, with access of air, most of the sulphur is volatilized, and a small but variable proportion of the metal is carried up at the same time: this operation being performed in a melting-pot, surmounted by a series of shells, the vapour as it rises, is condensed in the form of a light pulverulent substance, called flowers of antimony. The flowers, at the beginning of the process, are of a greyish yellow colour, and confit of sulphur, with antimony, either in the metallic state, or at least very little oxidated; the next portions are orange-coloured, and those which rise towards the end of the operation, are almost yellow, and confit of little else than pure sulphur. What remains behind at the bottom of the melting-pot is a greyish ash-coloured oxyd, still holding a little sulphur: among the old chemists it was known by the name of grey calc of antimony; by the moderns it is called the grey sulphurated oxyd of antimony. It is most commonly prepared by flow roasting of the crude antimony in a flat dish or reverberatory furnace, and the sulphur and metal that are volatilized with it are allowed to escape. See § 4.

3. The grey sulphurated oxyd, when urged by a sufficient degree of heat, forms a transparent glafs, possefling, according to circumstances, every shade of colour from light yellow to the deepsehest hyacinthine red; this is the glafs of antimony, or, according to the modern nomenclature, the vitreous sulphurated oxyd of antimony. In order to prepare this, any quantity of the grey oxyd is put into a crucible, and kept at a full red or low white heat till it enters into perfect fusion; soon after this has taken place, the end of a clean tobacco pipe should be dipped in it; and if the matter that adheres to the pipe is transparent, and may be drawn into a thread like common glass, it has been treated sufficiently: the crucible is then to be removed from the fire, and its contents are to be poured on a compact flat stone or plate of copper. When the glafs has become solid, it should be removed into a covered vessel, as it cracks and flies while cooling.

It sometimes happens in making the glafs of antimony, that the grey oxyd begins to melt as soon as it is red hot, and continues limpid like water, without acquiring the property of drawing into threads like glafs: at other times, on the contrary, the long continuance of a white heat will do no more than bring it to a pally confluence. In the former case, the glafs is of an uncommonly deep colour; in the latter of a very light colour. This inequality arises from a difference in the grey oxyd; if it has been too little roasted, it flows with the first impression of the heat, but when more completely oxidated and desulphurated, it proves very refractory: this last, however, may be remedied by throwing in a little crude antimony in powder, which will immediately determine its fusion and vitrification; and in this case there are always found at the bottom of the crucible a few grains of very pure regulus of antimony.

If the previous desulphuration has been very slight, the oxidation also will have proceeded but a little way; and the glafs produced, though possessed of a vitreous fracture, is imperfectly opaque, and of a dark liver colour, hence it has obtained the name of liver of antimony: the same name, however, has been given to a preparation of crud antimony and nitre, which will be mentioned presently.

4. The action of acids upon the sulphuret of antimony is upon the whole so similar to their action on the regulus, as described, § 7, that it will only be necessary to point out the circumstances in which they differ. In general, the metallic part of the sulphuret is more easily dissolved and retained.
tained by acids than the mere regulus is, and the fulphur of the compound is not at all or very little acted upon. The sulphuric and nitric acids are decomposed with considerable energy, on pulverized fulphur of antimony; sulphurous acid in one cafe, and nitrous gas in the other, being copiously difengaged, the metal is oxidized, and remains intimately mixed, though no longer combined with the fulphur, very little of it being actually diffus'd by these acids. The mutric acid, even when cold, will decompose a large quantity of fulphur, during which process there is a considerable extraction of sulphurated hydrogen; if the mixture is heated, the whole of the metal enters into solution, leaving the fulphur at the bottom unaltered; a small portion, however, both of the fulphur and metallic oxide is diffus'd in the hydrogen, and escapes in a gaseous form; for Bengman observed, by performing this experiment in a vessel with a long narrow neck, that the sulphurated hydrogen, in its passage through, deposited a little kermes, or hydrofulphurated oxides of antimony. The belt menirrurn, however, for crude antimony, is a nitro-muricate acid, composed of one part nitric, and three parts mutric acid; the metallic oxide is entirely taken up, part of the fulphur is carried off by the hydrogen gas, another part is acidified and mixes with the other acids, and the remainder, about 25 per cent., is left at the bottom of the vessel in form of a white powder. In § 7, we have given an account of the original method of preparing the butter of antimony by sublimation of the regulus with corrosive mercurial mift: the same antimonial falt may be obtained by using the sulphuret of antimony, but instead of obtaining the mercury in a metallic flate, it is combined with the fulphur of the antimony into a violet-coloured mass, which, at a full red heat sublimes, and is deposited in the upper and cooler part of the vessel, in needle-form crystals of cinnabar, hence called cinnabar of antimony.

5. The fixed alkalies are capable by the dry way of combining with sulphurated antimony, forming several important preparations. If 15 ounces of pulverized crude antimony, 12 ounces of decrepitated sea salt, and 3 ounces of tartar, were mixed together, and fused in an earthen crucible, there will be found, on breaking the vessel when cool, that it contains two sublimes; the upper is of a lighter colour than the other, and consists of the salt with a little fulphur; the inferior sublimate is very heavy, opaque, of a black colour, and on being broken, exhibits a shining vitreous fracture; it has obtained the name of medicinal regulus, though improperly, being a simple alkali sulphuret of antimony, in which the metal is probably uncombined with oxygen, and nearly saturated with fulphur. A similar preparation to this is the ruby of antimony, or magnesia opalina, differing, however, in containing less fulphur, and in the metal being perhaps more oxidized. It is prepared by mixing equal parts of muriated soda (sea salt), nitre, and crude antimony, and fusing the whole in a crucible; there is a large quantity of fioriz in this as in the former process, and underneath them is a compact vitreous mass transparent in thin slices, and, if well made, of a deep, somewhat smoky-red colour, and brilliant metallic lustre. Neither of these preparations is deliquescing, or soluble in water, on account of the small proportion of alkaline falt that they contain. By increasing, however, the dose of alkali, the mass becomes soluble; thus, if to one part of sulphurated antimony we add two parts of pure dry pearl ash, we obtain by fusing a compact reddish-brown mass of alkaline fulphuret of antimony, and a little of the metal in its pure reguline flake is found at the bottom of the crucible. If the whole of the antimony is required to be diffus'd in the sulphurated alkali, as is the case in the preparation of kermes, it is requisite to add to the above ingredients about one-twentieth of their weight of sulphur. Hence it appears, that the sulphur of the crude antimony is divided between the metal and the antimony, in the compound ratio of their weights and their respective affinities for sulphur, in consequence of which some of the antimony is entirely desulphurated, and remains in an uncombined state, while the remainder being only partially desulphurated, unites into one mass with the sulphurated alkali. If this alkaline sulphuret of antimony, coarsely powdered, is boiled in pure water, nearly the whole is held in solution as long as the liquor continues hot, so that it may be filtered hastily through a filter; but in proportion as the liquor cools, a copious precipitation takes place of a bulky, flocculent sublimation, whose colour is a deep brick-red approaching to that of the kermes mift, whence it has been called kermes mineral: after the deposition of kermes has ceased, the liquor being separated from it by a filter, is of a wine-yellow colour; and upon the addition of any acid, a still further precipitation is brought about, of an orange yellow powder, which is called the golden sulphur of antimony. Kermes may also be prepared in the humid way, as was first shewn by Lemery in the year 1707. Since that period a multitude of processes have been published by the French chemists for the preparation of this sublimate; none of them, however, appear to be essential improvements of Lemery's original method; and as this has received the high favour of the observant and accurate Beau'mé, we shall select it for the use of our readers. Put into a clean iron pan five or six parts of pure liquid fixed alkali, with fifteen or twenty parts of water; let it over the fire to heat, and as soon as it has begun to boil, stir in some well levigated sulphuret of antimony, equal in weight to one-sixteenth of the alkali; stir the mixture well, and when it has boiled for a minute or two, throw the whole on a filter, so that the clear liquor may pass through while hot; a large quantity of kermes will be deposited while it cools, which, after being separated from the alkaline solution, is to be washed first in cold, and then in hot water, till the water is washed off quite limp; the powder being then dried in the flase by a gentle heat, and levigated and passed through a fine sieve, is to be kept in a well-closed pint for use. The alkaline liquor, when it has ceased to deposit kermes, may be made to yield the golden sulphur, by saturating it with dilute sulphuric acid. In this process by the humid way, as in the other by the dry way, a partition of the sulphur takes place between the alkali and the metal, by which a portion of this last is left undissolved in the form of a grey powder; and this, by simple fusion in a crucible, is reduced to a mass of regulus. According to the French chemists, both the kermes and golden sulphur are hydrofulphurated oxides of sulphuret of antimony; and Thetars, in his experiments on the antimonial oxides, has given the following as the result of his analyses of these two sublimes, viz. Kermes mineral contains,

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown oxide of antimony</td>
<td>72.760</td>
</tr>
<tr>
<td>Sulphurated hydrogen</td>
<td>20.398</td>
</tr>
<tr>
<td>Fulphur</td>
<td>4.156</td>
</tr>
<tr>
<td>Total</td>
<td>97.314</td>
</tr>
</tbody>
</table>

100 lbs.

Golden sulphur contains,

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange oxide of antimony</td>
<td>68.3</td>
</tr>
<tr>
<td>Sulphurated hydrogen</td>
<td>17.877</td>
</tr>
<tr>
<td>Fulphur</td>
<td>11 to 12</td>
</tr>
</tbody>
</table>

| Total | 98.177 |

The
The theory concerning their formation is, that the alkaline antimonial sulphuret coming into contact with water, decomposes it; that the oxygen of the water combines with the sulphur of the metal, while its hydrogen dissolves some of the sulphur with which it is in contact, and unites to the sulphurated metallic oxyd in different proportions, according to the different degrees of oxidation of these oxyds; that when the antimony is the lead oxidated, it unites with the greatest quantity of sulphurated hydrogen, and becomes insoluble in alkali, forming the kermes; and, on the other hand, when more oxidized, it unites with its sulphurated hydrogen, and remains dissolved in the alkali till precipitated by an acid, forming the golden sulphuret. Kermes may also be made by pulsing sulphurated hydrogen through a solution of muriat of antimony; and this among others is added as a proof of the kermes containing the metal in an oxidated state. Notwithstanding, however, the excellent experiments of Berthollet and Benhars on this subject, many very strong objections may, in our opinion, be urged against their theory; to enter into them at full length would be inconsistent with the plan of this work, but we shall reserve the subject when treating of the Metallic Hydrosulpheurts.

6. The nature of the preparations resulting from the mutual action of nitre and sulphurated antimony, depends very much on the proportion which the nitre bears to the other ingredient. The nitric acid is consumed in acidifying the sulphur and oxidating the antimony; and the alkaline base of the nitre unites with the sulphur, if any remains, with the sulphuric acid forming sulphate of potash, and with the metallic oxyd. When the nitre considerably exceeds the antimonial sulphuret, as in the preparation of diaphoretic antimony, the sulphuret is entirely oxygenated, and partly escapes in the form of sulphuric acid gas, while the remainder, with part of the alkali, forms sulphate and fulphate of potash; the metal also is completely oxygenated at the expense of the nitre; and the oxyd, hence resulting, combines with the potash in two proportions; that portion which is united to a large quantity of alkali is rendered soluble, and the other remains insoluble. Hence when the result of the above process is dissolved with hot water, we find dissolved in the liquor, and may obtain, in a crystalline form, sulphate and fulphate of potash, some undecomposed nitre, and antimonite of potash; the undissolved residue, or diaphoretic antimony, consists of the perfect oxyd of antimony combined with about a fifth of potash.

When the nitre and crude antimony are in equal proportions, only part of the sulphuret is oxidized, and the metal is at a low state of oxidation; by the action of warm water the mass is divided into two soluble portions; the first, called crucus metalletum, seems, like the glases of antimony, to be merely a sulphurated oxyd; the latter consists of kermes, of golden sulphur, and sulphate of potash. For further particulars see § 12.

§ 10. Phosphuret of Antimony.

Pelletier, in his Essays on Phosphorus, has given the three following processes for combining antimony with that highly inflammable substance. 1. To one ounce of regular antimony add an equal weight of glases of phosphorus, and one dram of charcoal; pulverize the whole well together, and fuse the mixture in a covered crucible; the result is a white metallic mass of phosphorated antimony, very brittle, with a lamellar fracture, and nearly cubical fragments. When a little piece of it is put upon lighted charcoal, and exposed to the action of the blowpipe, it emits, at the moment of fusion, a faint green flame, and then volatilizes like pure antimony, in the form of white flowers.

2. Equal parts of regular and glases of phosphorus furnish by fusion a metallic mass, whose fracture displays minute facets, and in every other respect is similar to No. 1. § 3. A phosphuret of antimony, with the same properties as theformer, may also be prepared by projecting on the melted regular small pieces of phosphorus. In this case, however, the crucible must be removed from the fire immediately after the last portions are thrown in, otherwise by a continuance of the heat it would be volatilized.

The phosphures of antimony are not applied to any use, and the above are all the facts which we are possessed of concerning them.

§ 11. Alloys of Antimony.

1. Antimony with gold. See Gold.
2. Antimony with platinum. See Platinum.
3. Antimony with silver.

According to Lamy, one ounce of regular antimony and three drams of cupelled silver, being fused together in a strong heat, yields an alloy of the same weight as the original materials, and similar to common regulars of antimony, but more compact, and not so brittle. Gellert (Chymie Metallurg.) relates, that 181 grains of silver being fused with 257 grains of regular antimony, the alloy was found to have lost during the process 11.5 grains; the remainder was very brittle, and in colour similar to regulars of antimony; its specific gravity was 8.44. But the fp. gr. of the silver being = 0.1, and that of the antimony being = 6.7, the fp. gr. of the alloy, supposing the whole lost of weight to have been antimony, ought to be = 7.56. Therefore the fp. gr. of this alloy is greater than the mean of its constituent parts. It is made no use of.

4. Antimony with copper.

These two metals mixed together in nearly equal proportions, form a hard brittle alloy, of a violet colour internally, which is not very liable to be affected by exposure to the air. Gellert, having mixed together 314 grains of copper, fp. gr. = 8.7, with 142 grains of regular antimony, fp. gr. = 6.7, obtained an alloy whose fp. gr. was = 7.02. During the fusing there was a loss of 4.5 grains; and putting the whole of this to the account of the antimony, the fp. gr. of the alloy ought, by calculation, to have been = 7.49. The fp. gr. therefore of this alloy is greater than the mean of its constituent parts. It is made no use of.

5. Antimony with iron.

The general properties of antimony with a very small proportion of iron, or martial regular, may be found above in § 4. Gellert having mixed by fusion 115½ grains of iron, fp. gr. = 8.0 with 173 grains of regular antimony, obtained an alloy of 63 grains less by weight than the materials. It was brittle, of an ash colour, and contained specks like rust of iron. Its fp. gr. was = 6.92. Now supposing the loss of weight to be placed to the account of the iron, the density of the alloy ought to be = 7.05; its fp. gr. therefore is less than the mean of its ingredients. This alloy was wholly unaffected by a powerful magnet, except one or two particles which appeared to be iron. It is not made any use of.

6. Antimony with mercury. See Mercury.

7. Antimony with tin.

These two metals being mixed together in nearly equal proportions, form a moderately hard, very brilliant, and brittle alloy, capable of receiving an exquisite polish, and not easily tarnished; it has therefore been occasionally manufactured into spectacles for telescopes. Gellert mixed together by fusion 231.5 grains of tin, fp. gr. = 7.36, with 231.5 grains of antimony; 77 grains were lost in the process, and the alloy was = 6.94 fp. gr. Supposing the whole loss to be...
be attributed to the tin, the density of the compound ought to be \(= 7.0\); its sp. gr. is therefore less than the mean of its ingredients.

8. Antimony with lead.

This is the most important of all the alloys of antimony, it being the material of which the common types for printing are made. In proportion as the lead exceeds the other ingredient, will be the ductility of the mass; and the lead may be hardened, and its fusibility unimpaired by so small a proportion of antimony as not to injure its ductility.

Gmelin found that equal parts of the two metals produced a porous brittle alloy; one part antimony, and two parts lead; afforded a more compact metal, but still brittle; one part antimony and three lead, gave a homogeneous metal ductile under the hammer, and much harder than lead: one part of antimony gave to eight of lead an increase of fusibility, hardness and colour, without materially injuring its malleability.

According to Gellert, 386 parts of lead, sp. gr. 11.7, being fused with 333 grains of antimony, experienced a loss of 101 grains. The alloy was brittle, and presented a granular somewhat shining fracture; its sp. gr. was \(= 9.17\); and even if the whole loss of weight is attributed to the antimony, the density by calculation ought to be \(= 9.12\).

The mass is therefore of a greater sp. gr. than the mean of its ingredients.


Equal parts of the two metals being fused together, formed a homogeneous brittle mass of a light ash colour; the loss of weight was about one-sixth of the whole; as however both these metals are very volatile, it is impossible to say with any certainty what proportion of the loss is to be attributed to each; the sp. gr. of the mass was rather less than that of the antimony, which is the lighter of the two.

It is not used.

10. Antimony with bismuth.

According to Gellert, equal parts of the two metals being fused together, lost \(\frac{1}{3}\) of their weight, and produced an alloy of a lighter colour than bismuth, and very brittle, displaying in its fracture a cubical structure like that metal; its sp. gr. of the mass was \(= 8.96\); whereas, supposing the \(\frac{3}{4}\) of loss to have been sustained by the bismuth, the density of the two, its density by calculation ought to have been only \(= 7.94\). Not used.

Concerning the combination of the other metals with antimony nothing is as yet known, except merely that cobalt unites easily with antimony, and manganese with great difficulty, and very imperfectly.

§ 12. The medicinal Virtues, and pharmaceutical Preparations of Antimony.

This metal affords several of the most valuable articles of the pharmacopoeia; and as it has for so many years engaged the attention of chemists and alchemists (of whom a large number have ever been zealous to add to the resources of the healing art), we possess an almost infinite variety of antimonial preparations, all of them valuable as medicines, all enjoying many virtues in common, but a few out of the number recommending themselves peculiarly to the medical practitioner from the uniformity of their composition, or from a greater tendency to one mode of operation rather than another, whereby particular indications in the cure of diseases may be fulfilled.

The first and most unquestionable operation of antimony on the human body is that of an emetic. This operation appears to be always in direct proportion to the activity of the antimonial in every other respect; and it exists in the highest degree in those preparations that are almost too virulent to be given internally with safety in common doses. Antimonials excite to vomit very speedily, and their action is continued on the stomach for a considerable time; hence they are of a peculiar service, either where any acid or poisonous matter has been taken which requires to be speedily and effectually removed; or in such cases as incipient fever, where, along with the clearing of the first passages, the physician wishes to prolong the mechanical action of vomiting, so as to induce a relaxation on the skin, and complete perspiration.

The operation of antimony is also extended to the intestinal canal, and hence it proves considerably purgative; and this effect takes place, either when the dose has been greater than necessary, merely to produce vomiting; or when the stomach has escaped the action of this powerful mineral. In order to secure the purgative, and prevent the emetic operation of antimony, it is advisable to unite it with some of the usual aperient medicines, whose operation it will thus assist in a considerable degree.

Antimony appears to promote almost all the evacuations, and to quicken and stimulate the action of the absorbent vessels. It is therefore eminently diaphoretic (or promoting perspiration); expectorant, and often diuretic. It frequently happens that a single one of the antimonial preparations may be made to produce each of these effects by varying the dose, increasing it to render it a vigorous emetic or cathartic; and diminishing it when the gentle and more gradual operation of a diaphoretic or expectorant is to be secured.

A long continued course of antimonials, in the mildest form, wherein the direct operation of this metal is scarcely at any one time to be detected, has been found of effient service, both in various obliterative cutaneous complaints, and to produce that change of constitution and supposed resolution of internal obstruction, which entitle a medicine to the (somewhat ambiguous) character of alterative and desinfectant.

We shall now proceed to take notice of those preparations of antimony which are actually in use, or which have acquired a certain reputation in medicine.

Antimonatum preparatum (Pharm. Lond. & Edin.). This is nothing but the crude antimony or native black sulphuret prepared for medicinal use simply by trituration to an impalpable powder, elixiduation with water, and subsequent drying.

In this native mineral the proportion of the sulphur to the metallic part is so large, as to render it almost entirely inert, at least with regard to any sensible operation. It is sometimes, however, though rarely, employed in cutaneous complaints; and formerly it was used in the preparation of decoctions of safflower, guaiacum, and the other sudorific woods; a quantity of the mineral being tied up in a loose cloth, and suspended in the vesel in which the decoction was preparing; but as scarcely the minutest portion of the antimony could be dissolved by this process, it has properly been omitted.

The crude antimony still, however, is retained in veterinary practice; and it may be given to many animals in doses of several ounces without any apparent operation.

It is likewise the material from which all the other antimonial medicines are prepared, directly or indirectly.

Antimonium vitreale (Pharm. Lond.), vitrum antimonii (Pharm. Edin.), Glass of antimony.

To prepare this, the crude antimony is roasted on a tile or other shallow vessel, with a very slow fire, and frequent stirring, till all the sulphur is expelled which can be separated in this method. What remains is a grey powder, which is to be melted in a crucible and an intense fire into a yellowish vitreous mass, to be poured out on a warm copper or iron plate, and when cold reduced to a very fine powder,
powder. This preparation is an oxyd of antimony not at its highest point of oxidation, and still retaining a small portion of sulphur, which it is impossible to separate by mere heat. When well prepared, it is pretty uniform in its nature, and is a very valuable medicine, operating even in small doses as a strong emetic and cathartic. It is scarcely ever employed internally, but is the basis of the emetic tartar, and the antimonial wine, in the London Pharmacopoeia.

Triturum antimonii ceratuum (Pharm. Edin.)

Take one ounce of glasses of antimony in fine powder, add it to one dram of yellow wax melted in an iron vessel, heat them gently together for a quarter of an hour, with constant stirring; pour out the mass when cold, and reduce it to powder.

The glaft of antimony here incorporates with the wax, and changes its colour from lemon yellow to brown in the process. The wax appears to lessen in a very great degree the activity of the antimony, so that this medicine may be given with safety, and has been much recommended in dysenterics and other bowel complaints. It is rejected from the London pharmacopoeia; but retained in those of Edinburgh, Amsterdam, and some others.

A great variety of preparations have been made from the crude antimony by the intermedium of nitre. The operation of this salt on the metallic sulphuret when dephlagrated together, is first to confine the sulphur, and afterwards, if the quantity be sufficient, to oxidize the metal to the highest point. It is remarkable, that the perfect oxyd of antimony, entirely dewelled of sulphur, and fully fusurated with oxygen, appears almost as inert as the crude sulphuret of antimony itself, whilst in the intermediate states of defulphuration, and oxidation, many very active medicines are found.

Of these the two following alone are now retained, the first with a smaller proportion of nitre, the latter fully saturated.

Crocus antimonii (Pharm. Lond. & Edin.). Crocus of antimony, also called crocus metallorum, fafran des metaux, and hear or liver of antimony, by foreign writers.

To prepare this, take one pound of crude antimony, one pound of nitre, and one ounce of common salt, mix them accurately, and project them, a spoonful at a time, in a large crucible heated red hot; when the whole is dephlagrated, increase the fire so as to melt the mass, and pur it out. When cold, it will be found to consist of two parts, the upper a whitish faline facetia, to be separated from the lower, which is the crocus of antimony. This is to be rubbed to a fine powder, and repeatedly washed with warm water, till it comes off from the powder quite infusid.

The crocus of antimony is a very violent emetic and purgative, and is seldom employed internally except in farriery. When washed it appears to have the greatest resemblance to the glasses of antimony above deferrited, and it is referred for similar purposes, that is, as a basis for the tartar emetic and some other of the antimonial preparations.

When prepared in the large way, it would appear that it is not necessary to heat the vessel in which the mixture is fired, the heat excited by the dephlagration being sufficient to fuse the whole to the requisite degree. The whitish facetia here produced consists of sulphate of potash (formed by the potash of the nitre and the sulphuric acid, generated by the dephlagration of the sulphur), of the sea-salt, and probably of a portion of uncombined alkali, with some particles of the metallic sulphuret that may have escaped the action of the nitre.

{Antimonium calcinatum (Pharm. Lond.), antimonium

Sulfum cum nitro (Pharm. Edin.), eale antimonii, or diaphoretic antimony.

This is prepared, according to the London college, by projecting gradually in a hot crucible a mixture of one part of crude antimony with three parts of nitre, raising the heat after dephlagration, and continuing it for half an hour, and when cold, pulverizing and edulcorating it.

The Edinburgh college directs one part of the grey powder left after roasting crude antimony for the glasses of antimony, to be dephlagrated with only an equal weight of nitre, to be heated for an hour, and afterwards reduced to powder and washed till infusid.

These two preparations are, however, essentially the same, and consist of the oxyd of antimony left after the sulphur has been entirely dissipated by the nitre, itself having been oxidized to a high degree by the same dephlagration.

As the intention of using so much nitre in the first method is to confine the whole of the sulphur as well as to oxidize the metal, it is obvious that a much larger quantity of this neutral salt will be sufficient where so much of the sulphur has been driven off by roasting, as is the case in the second method. Formerly a distinction was made between the pulverized oxyd taken before, or after washing; in the first instance being termed antimonium diaphoreticum nitratum; and in the second, antimonium diaphoreticum lactum: the former, as it contained an alkaline salt, was deliquescent to a certain degree, and required to be preferred in a close vessel. It is now, however, diluted, the powdered alone being retained.

The diaphoretic antimony, owing probably to its high state of oxidation, is mild in its effects, and may be taken in large doses, without producing sickness or purging. It is naturally white and in a pulverulent state, the antimonial oxyd not being truly vitrified in the process, as it is in the preparation of the crocus of antimony, but only involved in the alkali of the nitre, from which it is separated by washing.

The several washings of this substance contain a mixture of sulphate of potash, with part of the nitre undecomposed, and the naked alkali, all holding in solution a certain quantity of antimonial oxyd.

If this compound liquor is decomposed by an acid, the metallic oxyd precipitates in the form of a white powder, which has been called the ceruse of antimony, or materia perlata; but if the liquor is merely evaporated to dryness, part of the salts crystallize together with metallic oxyd, and form the nitrum filiate, or antimoniated nitre of Stahl. Theselatter preparations are now in disuse.

Some other antimonial medicines have been prepared with different proportions of antimony and nitre, forming oxyds, all of which act in a similar manner upon the human body, but with different degrees of energy. It should be noted that the middle point with regard to the proportions of antimony and nitre, that is, equal parts of each, furnishes the most active antimonial oxyd, which is the crocus; and the medicinal power seems to diminish in proportion as either of these ingredients is used in excess. Thus the completely oxydized metal, the diaphoretic antimony, is posseted of but little activity; and on the other hand, the crocus antimonii medicinalis, formed by dephlagrating eight parts of antimony with one of nitre, and consequently but partially dephlagrated, is equally mild in its operation.

The crocus antimonii nitidus, the proportions of which are two parts of antimony to one of nitre, is another medicine now in disuse, which appears to be more active than the last mentioned, but milder than the common crocus.

The
The *emeticum mite antimonii* of Boerhaave is made by employing one part of antimony to two of nitre, and is a mild and safe medicine.

Another antimonial oxdy, formerly employed in medicine, is prepared by dephlegmatizing the *regulus* of antimony with twice or thrice its weight of nitre, and this has also been termed by some the *creaffa antimonii*.

The nitre here, having no sulphur to engage it, acts entirely on the metal, and reduces it to the state of a perfect oxdy, which, when washed, resembles in every respect the washed diaphoretic antimony made with the black sulphuret and three times its weight of nitre. The *regulus*, however, does not require more than its own weight of nitre for this preparation; all the rest is superfluous.

**Regulus antimonii medicinalis**, vel *ferifigum Crani*, an antimonial remedy much recommended by many of the German physicians, and introduced in the former pharmacopoeias of Edinburgh, Brandenburg, Strasburg, and others of celebrity, but now discontinued.

This, which is improperly termed a *regulus*, is prepared by fusing together five parts of crude antimony with four of common salt and one of salt of tartar. On cooling, two subflavines are found in the crucible, an upper fcoria, containing the sea-falt, the alkalies, and part of the sulphur, and the lower, a reddish mafs composed of the greater part of the metal, deprived of a portion of its sulphur by means of the alkalies, and thus rendered more active as a medicine than the crude antimony. It is this lower reddish mafs which is the *medicinal regulus*. The ufe of the common falt fcarms to be merely to affift the fusion.

**Regulus antimonii**. The methods of preparing the true regulus of antimony have been already mentioned. This metal ufed formerly to be caft in the form of a cup, and, owing to its flight degree of fusability in various metals, a powerful emetic liquor was prepared fimpfly by filling the cup with wine, and fuffering it to fland for fome hours. At the fame time the cup had lost fo little of its weight that it would continue to give the fame properties to fresh portions of wine for years, or almost centuries, without being corroded through.

In like manner the regulus caft into the form of pills would produce the emetic or purgative operation to any number of persons in fuccedence, and hence they were called *perpetual pills*.

These preparations are now, however, difcontinued.

**Vinum antimonii**. (*Pharm. Lond.*). Instead of the regulus, the glafs of antimony is now employed as the basis of this medicated wine. One ounce of this, in fine powder, is to be digefled for twelve days with frequent agitation, in a pint and a half of white Libfon wine.

This is a very valuable antimonial, principally employed in dofs of from ten to fifty drops as a diaphoretic. The quantity of the metal taken up by the wine is extremely small, but is liable to vary in proportion to the acidity of this mefltrum, which is one inconvenience attending its ufe.

**Vinum antimonii tartarifati**. (*Pharm. Lond. and Edin.*) In the former diffenatory it is directed to be made by dif- solving forty grains of cement tar in two ounces of boiling water, and afterwards adding eight ounces of white Libfon wine.

In the latter, twenty-four grains of cement tar are fimply difolved in a pint of the wine.

The nature and preparation of the celebrated *kermes mineralis*, or *palvis carthusianus*, have been already explained; this is at preffent laid afide, and in its place the London and Edinburgh pharmacopoeias have adopted the precipitate, formed from a liquid folution of sulphuret of antimony in caufic alkali, by the addition of an acid, instead of by mere cooling, as is the caufe with the kermes: this is the

**Sulphur antimonii precipitatum vel auratum**, the golden sulphur of antimony.

To prepare it, boil for three hours two pounds of crude antimony with four pounds of the aqua kali puri (or caufic bye), diiled with three pounds of diffilled water; strain it while hot through a linen cloth, and immediately add gradually dilute virtuof acid, sufficient to precipitate the sulphurated antimony, which is of a fine golden colour. Wash it well with warm water, and dry in a gentle heat.

The golden sulphur is of a lighter colour than the kermes, the latter being generally of a brown or brick red. Both of them confift principally of sulphur, but holding in solution a certain quantity of the metal which renders them emetic or purgative when taken in dofs of feveral grains. The golden sulphur is never ufed with a view of acting violently or by any fensible operation, but it is employed (often combined with mercury) as a gentle alternative, with a view of keeping up a constant perforable state of the skin, and determining a gentle increase to the feveral emunctories. Hence its ufe in various obflinate cutaneous complaints, and other chemical disorders.

The only folutions of antimony in acids employed in medicine are the *muriated antimony*, more commonly known by the name of *butter of antimony*, and the *antimoniated tartar* of *potash*, or the tartar emetic. The chemical nature of each of these interfecling preparations has been already described.

The muriated antimony is much too acid and violent to be employed for internal purpofes. It is ufed externally as a caufic, efpically in farricine. The *powder of algarob*, or the antimonial oxdy, precipitated from this falt by water alone, or by an alkaline folution, is ufed by feveral chemifls as the basis of the emetic tarar.

**Antimonium tartarifatum vel tartrarum emeticus**. (*Pharm. Lond. and Edin.*) To prepare this moft valuable medicine according to the London Pharmacopoeia: take one pound and a half of crocus of antimony in fine powder, two pounds of cream of tartar, and two gallons of water, boil them together in a glafs veffel for a quarter of an hour, strain the liquor through paper, and fet it by to cool: the cryftals that form are the emetic tarar.

The Edinburgh college directs: fiift, to add some of the muriated antimony to hot water, holding falt of tartar in folution, to collect the white precipitate thus formed, and edulcorate it thoroughly: next to add nine drams of this precipitate, and two ounces and a half of cream of tartar, in fine powder, to five pints of water, and to boil the whole till the tartar is difolved; afterwards to evaporate the liquor in a glafs veffel, till a pellicle appears on its surface, and to fet it by to cryftallize.

The emetic tarar is by much the moft valuable of all the antimonial preparations; its composition renders it sufficiently fusible in fimple mefftrum, and as it is almost entirely infipid, and as the requisite dose is in all cafses comparatively fmall, it may be given with great cafc to children, or wherever there would be a difficulty of getting down bulky medicines. In dofs of from one to about three grains it proves emetic, and often purges even after the ftomach has been emptied: in smaller quantities, or mixed with various other medicines, and efpically with thofe that correct its emetic property, it fulfills the other intentions with which antimonials are given; and with proper precautions it is always safe, manageable, and highly to be depended on.

vol. ii.
When prepared in the same way, it is generally very uniform in its nature, but it is liable to some variation, when different antimonial oxides are used; an inconvenience it would be of great importance to prevent.

The last of the antimonial medicines that we shall mention, is the pulvis antimonialis (Pharm. Land.), or the antimonialis calcaris phosphaturae. (Pharm. Edin.)

To prepare it. Take equal parts of crude antimony and bartholomew's leavings, mix them together, and throw them into a wide iron pan, heated fairly red, and stir them constantly till they acquire an ash-colour; then take them out, reduce them to powder, fill a coated crucible with it, and let it cool on the top another crucible, inverted, and with a small hole at the bottom, to serve as a cover; then raise the fire gradually to a full white heat, and keep it in this state for two hours; when cold, take out the contents, reduce them to a moist sublimate powder, and it is the pulvis antimonialis.

This preparation is intended as a substitute for the James's Powder, one of the most celebrated empiric medicines in this or any other country, the value of which has long been established by the most unequivocal testimony. We shall refer the reader to this article for an account of the ingenious analyses made by Dr. Pearsall of this powder, and published in the Philosophical Transactions, whereby it is proved to be a mixture of an oxal of antimony with the earth of bones, and calcareous phospurate; and hence the pulvis antimonialis has been employed as a substitute.

This preparation is given in doses of one to five or six grains, or even more, and is employed peculiarly in removing general fever, by means of perpiration. It is never intentionally given in such large doses as to prove emetic; but it is generally supposed, that the genuine James's Powder may be taken in larger doses than the antimonial powder, without exciting sickness.

We may add, that Mr. Chenevix, (in the Philosophical Transactions for 1801) has given the following ingenious method of preparing this medicine in the moist way, which removes every cause of variation which may take place whenever the oxal of a metal so volatile as antimony is in certain flutes, is subjected to intense and long-continued heat. The following is the simple process: "Dissolve together, or separately, in the least possible portion of muriatic acid, equal parts of the white oxal of antimony, formerly called algaroth powder (made by dropping the butter of antimony into water), and of phosphore of lime; pour this solution gradually into distilled water, previously alkalized by a sufficient quantity of caustic ammonia: a white and abundant precipitate will take place, which, when washed and dried, is the proposed substitute for James's Powder."

In this process, the antimony and the phosphore of lime are precipitated from their solution in muriatic acid at the same instant, the former by means both of the ammonia and the water in which it is dissolved, and the latter merely by this alkali. Hence, the inventor gives the useful caution to pour the mixed muriatic solutions into the alkaline liquor, and not to add the latter to the former; in order that the precipitation of the antimony and the phosphore of lime may be concomitant, and therefore in uniform proportion from first to last. The muriatic acid simply dissolves phosphore of lime, and does not decompose it, and therefore it is separated unchanged from its solution by the ammonia. If it be wished to prepare this powder with a stronger dose of antimony, it is only requisite to increase the proportion of muriated antimony to the muriated calcareous phosphore, before the precipitation is made.

We shall only add to this short review of the various antimonial preparations used in pharmacy, that several other preparations, slightly varying from those which we have mentioned, have been at times recommended by several eminent men, and have had a certain vogue; but it does not appear that any thing further can be expected from any other change in the preparation of antimonial medicines; and those which we already possess, form some of the most valuable articles of the Materia Medica.

§ 15: Uses of Antimony.

The uses of antimony are not very numerous; it is of high value in medicine, and is employed, in combination with other metals, in the manufacture of printers' types, and specula for telescopes. Its oxides are used in colouring glafs; the sulphuret is employed in feurifying copper and other metals which are found mixed with gold; hence it was called by the alchemists balthum regis, or balthum folis.

The native antimony, at first, was of service only in the composition of paint. Scripture describes it to us as a sort of paint, with which the women blacken their eye-brows. Jezabel underlining that Jehe was to enter Sarepta, painted her eyes with antimony, or, according to the Hebrew, "put her eyes in antimony."

At this day the women of Syria, Arabia, and Babylonia, anoint and blacken themselves with the eyes; and both men and women put black upon their eyes in the desert, to preserve them from the heat of the sun, and the piercing of its rays. M. Daruix tells us, that the Arabian women border their eyes with a black colour made of tylis, which the Arabsians call redel. They draw a line of this kind of blacking without the corner of their eyes, to make them appear larger. Inf. in his enumeration of the several ornamentations belonging to the daughters of Sion, has not forgot the needles which they made use of in painting their eyes and eye-lids, nor has this practice escaped the lapse of Juno.

"Ile fupercrium madida fulgine tintum
Obliqua producit acn, pinguque trementes
Attollens oculos."

Ezechiel, describing the irregularities of the Jewish nation, under the idea of a debauched woman, lays, that she bathed and perfumed herself, and that she anointed her eyes with antimony. Job shews sufficiently how much antimony was in esteem, by calling one of his daughters a vessel of antimony, or a box to put paint in, corum fibil. Tertullian and St. Cyprian have declaimed very warmly against this custom of painting the eyes and eye-brows.

ANTINE, in Biography, a Benedictine monk, was born at Gonoreux, in the diocese of Liege, in 1618, and published several useful works of an historical kind. In 1730, he published the five first volumes of a new edition of "Du Cange's Glossary," with valuable corrections and editions. He also bestowed much pains upon "Bouquet's collection of French Historians," and on "The Art of verifying Dates," published in 4to. in 1750, and reprinted, with enlargements, in 1770. Nov. Dict. Hist.

ANTINOE, or ANTINOopolis, now called Ennea, by the Arabs, in Ancient Geography, a city of Upper Egypt, on the east side of the Nile, was built near the ruins of Abydos, where the Egyptians worshipped the god Befa, and revered his oracles; and became the capital of a nome or province. The oracle of Befa was famous in the time of Aemilianus Marcellinus, who says that all the neighbouring people went to consult him, and assembled at a certain period to celebrate festivals in his honour. Hence the Arabs call Antinoe the city of the Magi. This city was built in consecuence of a flamboyant passion, which ill disguised the appearance of gratitude affected by Adrian, its founder.
This prince, renowned for his political and military talents, was, at the same time, contemptible on account of his passion for Antinous. The perfection of whose form is proved by one of the finest statues bequeathed to us by antiquity. Adrian, equally superstitious and depraved in his manners, while he was in Egypt with his court and army, consulted the oracle of Befa, which declared, that he was threatened with great danger, unless a perfon that was dear to him, and by whom he was beloved, was immolated for his preservation. Antinous offered himself for the victim, and the emperor had the cruelty to accept the sacrifice.

The beautiful and generous Antinous precipitated himself from the summit of a rock into the Nile, and Adrian thought to efface his ingratitude and infamy by building, in honour of his favourite, whom he likewise regarded as his deliverer, a city which, under the name of Antinoe or Antinopolis, has perpetuated at once his barbarous cruelty, and his criminal passion. This city he embellished with all the most valuable productions of art. The statues of Antinous were here considered as sacred images; and the emperor not only erected temples in honour of him, but instituted games and sacrifices, and regulated the worship that was to be paid to his memory. Savary tells, that this city was half a league in circumference, and that two principal streets, 45 feet wide, intersecting each other at right angles, traversed its whole extent. The others were narrower, but equally straight. The two largelst terminated by four gates, some of which still subsist; the handomest has three vaulted entries; that of the middle is 40 feet high by 22 in width, and 20 thick; the other two are smaller. Each of the façades of this edifice is ornamented with four pilasters in bas relief, the Corinthian capitals of which, with the leaf of the Acanthus, have a considerable projection. This beautiful gate was surrounded by eight Corinthian columns, of the same height with itself. One only has escaped the ravages of time, and of men; the rest are either mutilated or destroyed; but the pedestals remain entire. Besides this edifice, one discovers in different quarters of the town, heaps of rubbish, which announce temples or palaces destroyed. If we may judge from the distances of the pedestals along the streets, they were bordered by a colonnade, which formed a portico on each side, and allowed the inhabitants to walk sheltered from the sun. Besides these embellishments, one of the squares was ornamented with four large pillars of the Corinthian order, three of which have perished, their bases only remain. The fourth is preferred, and is about 50 feet high. The shaft is composed of several stones. On the first is carved an ornament of oak leaves. On the pedistal is a Greek inscription, half effaced, which dedicates it to the emperor Alexander Severus.

The velleites of the city, says Sonnini, excite regret for its destruction. The extent of ground, strewed with the most beautiful remains of antiquity, threw him into admiration and astonishment. In the time of Vansleb and of Paul Lucas, there were exiling piles of architecture altogether entire, which he could not find. What appeared to him most remarkable was a triumphal arch, or magnificent gate, decorated with fluted pillars; its front was 50 yards in length; and he has given a drawing of it. On the other side of the mountain which terminates, towards the east, the site of the ancient Antinopolis, are to be distinguished many apertures in the rock, which led to grottoes, that were burial-places or catacombs. The mosque of the village which is near the city, the appearance and population of which form so striking a contrast with the superb edifices and elegance of the ancient city built by Adrian, contains a tomb, and the relics of a saint, from whom this place has obtained the name of Scheik Abadi; and this saint, though regarded by the Mahometans as a zealous defender of the Koran, was, at the same time, claimed by the Christians as one of their bishops, who enjoyed the painful honour of martyrdom at Antiné. Towards the end of the fourth century, this city is said to have been peopled by Christians. Palladius assures us, that it had 12 convents of virgins, and several others inhabited by monks. It is now occupied by the worst people and most determined banditti and robbers in Egypt. Savary's Letters, vol. i. p. 552. Sonnini's Travels in Upper and Lower Egypt, p. 517.

**ANTINOEIA, in Antiquity, annual sacrifices, and quinquennial games, in memory of Antinous the Bithynian.**

They were instituted at the command of Adrian the Roman emperor, at Mantinea in Arcadia, where Antinous was honoured with a temple and divine worship. They were also celebrated at Argos.

**ANTINOMIANS, in Church History, denote those who maintain the law of no use or obligation under the gospel dispensation, or who hold doctrines that clearly subvert the necessity of good works and a virtuous life.**

The Antinomians took their origin from John Agricola, about the year 1528, who taught that the law is no wife necessary under the gospel; that good works do not promote our salvation, nor ill ones hinder it; that repentance is not to be preached from the decalogue, but only from the gospel.

This sect sprang up in England, during the protectorate of Oliver Cromwell; and extended their system of libertinism much farther than Agricola, the disciple of Luther. Some of their teachers expressly maintained, that the elect cannot fall from grace, nor forfeit the divine favour; the wicked actions they commit are not really sinful, nor are to be considered as infinities of their violation of the divine law; and that consequently they have no occasion either to confess their sins, or to break them off by repentance. According to them, it is one of the essential and distinctive characters of the elect, that they cannot do any thing which is either displeasing to God, or prohibited by the law.

Luther, Rutherford, Schlabbechburgh, Sedgwick, Gataker, Witsius, Bull, Williams, &c. have written refutations; Crip, Richardson, Saltmarsh, &c. defences of the Antinomians; Wigandus, a comparison between ancient and modern Antinomians.

The doctrine of Agricola was in itself obscur, and perhaps represented worse than it really was, by Luther, who wrote with acrimony against him, and first styled him and his followers Antinomians. Agricola stood on his own defence, and complained, that opinions were imputed to him, which he did not hold. Nicolas Anfodir fell under the same odious name and imputation, and seems to have been treated more unfairly than even Agricola himself. It is rather hard to charge upon a man all the opinions that may be inferred from things that have halfly dropped from him, when he himself disfaves such inferences.

**ANTINOMY, ANTINOMIA, derived from anti, contra, and νομος, νομι, a contradiction between two laws, or between two articles of the same law.**

Antinomy, sometimes also signifies an opposition to all law. Whene a sect of enthusiasts, who are for carrying gospel liberty above all moral regards, and who neglect the motives of virtue as insufficient to salvation, are called Antinomians; and sometimes Anomians.

**ANTINOUS, in Astronomy, a part of the constellation Aquila, or the eagle.**

**ANTINOUS, in Mythological History, a Bithynian youth,**
youth, the favourite of Adrian, and the object of his unnatural and detestable passion. Some have said, that he fell accidentally into the Nile, as he was sitting on that river with the emperor, and was drowned. Dio Cassius affirms us, that he was assassinated in the manner already related under Antioch. The emperor, whatever was the occasion of his death, bewailed him, says Spartian, with all the tenderness and weakness of a woman lamenting the death of her husband. To lothe in some measure his grief, he defied the Greeks to rank him among the gods, which they accordingly professed; so that in a short time all the Eastern provinces were filled with statues, temples, and chapels, consecrated to this new divinity. It was even pretended, that he uttered oracles; but his answers were commonly thought to have been composed by Adrian. The Astrologers, having discovered, or pretended to discover a new star, gave out that it was Antinous. Adrian caused the body of his beloved satyr to be buried with the utmost magnificence, built a city on the spot, and converted his tomb into a temple, where he was laid to work miracles; which we find exposed and ridiculed by the Pagans themselves.

Antinous, in Sculpture, a very famous Roman antique statue; originally in the collection of cardinal Alexander Albani: it is at present in the gallery of antiques, in the museum at Paris.

This statue is in marble; it is a standing figure of a young man, entirely naked; the head looks downwards, with a melancholy air; this is in every respect a highly finished and beautiful performance.

There are nearly as many statues of Antinous as of the Venus de Medici; and they are very similar to each other: the hair is always disposed in the same manner, covering the forehead nearly as low as the eyebrows; and they all resemble one another in conveying a melancholy idea to the mind.

Mr. Richardson supposes that the vast number of these statues may be attributed to the nobility of Rome, who probably might make court to the emperor Adrian, by having statues of his favourite Antinous.

Among the different statues referred to, was one of late in the yard of the palace of the grand duke at Florence. There were two in the Villa Matelli; another in the garden of the Belvidere, found in Adrian's baths by Leo. X. Another fine statue of Parian marble, formerly broken to pieces, but well put together, stood in the Villa of Caffafo, on Monte Caelio. The pieces of this statue had been made use of by the Goths to build a wall with, at the demolishing of which, they were found and put together. All the statues of this Villa had been treated in the same manner.

There is also a number of very fine busts of Antinous; among which, was one twice the size of life in the palace of the Caffeo, at Rome; another in the palace Giuliniani; besides many others.

Antioch, or Anzio, Capr., in Geography, a promontory of Italy, in the ecclesiastical state, between port Olbia and the gulf of Gaeta. It has a fortified tower, and a convenient port. It takes its name from the ancient Antium in its vicinity.

Antioch, in Ancient Geography, a city of Syria, was built in memory of his father Antiochus, by Seleucus Nicator, on the river Orontes, about 20 miles from the place where that river empties itself into the Mediterranean; being equally distant from Constanopolis and Alexandria in Egypt, or about 700 miles from each. It soon became, and continued to be for many ages, the metropolis of the east, for the Syrian kings, and afterwards the Roman governors, who presided over the affairs of the eastern provinces, chose it for their place of residence; and in the Christian times, it was the see of the chief patriarch of Asia. It ought also to be particularly mentioned, that the disciples of Christ were first called Christians at Antioch, and this Chrysolotn signifies as the distinguishing appellation of this city above all others; and he has celebrated this honour in a distinct homily on Acts XI. Here also the gospel was preached to Greeks who were incorporated into the Christian church. Here also Barnabas and Saul were sent out by the church, under the direction of the Holy Ghost, to travel through Pagus cities, to give light to the Gentiles, and to publish Jesus for salvation to the ends of the earth. We cannot forbear observing, that the Gospel acquires credibility from its being first taught in the most populous, enlightened, and free cities, never flinching or compromising the public eye, but challenging full examination; and that in those cities it obtained numerous converts by conviction, without the aid of force or fraud. Antioch was particularly honoured by the Jews, on account of the Its civilization, which Seleucus Nicator had given to that city, together with the Greeks and Macedonians; and which, according to Josephus (Ant. lib. xii. c. 13.), they retained in his time. This metropolis of Syria was afterwards known by the name of Tetrapolis, being divided, as it were, into four cities, each of them having its proper wall, besides a common one, which enclosed them all. The first of these cities or quarters was built by Seleucus Nicator; the second by those who repaired thither on its being made the capital of the Syro-Macedonian empire; the third by Seleucus Callinicus; and the fourth by Antiochus Epiphanes. At the distance of about four or five miles was a place called Daphne, and reckoned a suburb of Antioch. Here Seleucus planted a grove, and in the midst of it erected a temple, which he consecrated to Apollo and Diana. To this place the inhabitants of Antioch repaired for their pleasures and diversions; and thus it became at last so infamous, that "to live after the manner of Daphne," was used proverbially to express the most voluptuous and dissolute mode of living. Daphne was formerly of such note, that the metropolis was distinguished by it, and denominated Antioch near Daphne.

Antioch, though it continued for 1600 years, as Pliny calls it, the queen of the East, was frequently in danger of being overwhelmed by earthquakes to which its situation exposed it, or of being ruined by its enemies. About 144 years before Christ, the disorders and tumults occasioned by the licentious and tyrannical conduct of Demetrius, the sovereign of Syria, terminated in a general revolt of the inhabitants of Antioch; and Demetrius was under a necessity of seeking assistance from Jonathan, one of the Macedonians, for the purpose of chastising the mutineers. Having obtained 3000 men, he resolved to disarm them, and issued orders for this purpose. This measure inflamed their resentment, and produced an insurrection; in that 125,000 men invested the palace in order to kill the king. The Jews flew to dissuage him, dispersed the multitude with fire and sword, burnt a great part of the city, and killed or destroyed very nearly 100,000 of the inhabitants. Upon the destruction of the Syrian empire by the Romans, Antioch submitted, and remained for a long time under their dominion. About the year 115, in the reign of the emperor Trajan, Antioch was almost utterly ruined by one of the most dreadful earthquakes which history records. Trajan himself escaped with difficulty, and not altogether unshorn, through a window of the room in which he had retired; and he afterwards contributed largely towards restoring its ancient splendour. In the year 155, it suffered very much by a fire, the damage of which was repaired by Antoninus Pius. Upon the revolt of Avidius Cassius, the Roman
general, about the year 176, the inhabitants of Antioch took part with him, and thus incurred the resentment of Marcus Aurelius, who inflicted a severe decree, forbidding all shows and public divertions, and even the exercise of all municipal offices; but upon their repentance he pardoned their offences, restored their privileges, and visited their city before he left the province. In the year 194, they were again deprived of their privileges by the emperor Severus, for joining Niger, and subjected, as a mere village, to the authority of Laodicea; but by the intreaties of his son Caracalla, then an infant, he mitigated their punishment.

Upon the decline of the Roman power, Antioch became an object of contention between the Romans and the nations of the East; and accordingly, when Sapor, king of Persia, overran Syria and other provinces, the city of Antioch was surprised whilst the idle multitude was fondly gazing on the amusements of the theatre; its splendid buildings, private and public, were either pillaged or destroyed; and the numerous inhabitants were put to the sword, or led away into captivity. This fact of Antioch is alluded to by the decisive testimony of Ammianus Marcellinus, to the reign of Gallienus; though other historians refer to it that of Valerian, some years before. Upon the division of the Roman empire by Constantine, in 337, it was inhabited with a very gibeous famine, and relieved by the liberality of the emperor, who sent thither 39,000 bales of corn. In 347, Constantine II. caused a harbour to be erected at Seleucia for the convenience of Antioch, which was executed at a very great expense. It suffered from famine in the reign of Julian, and also in that of Theodosius the Great, at which latter period the distress of famine was aggravated by a plague. On occasion of a tax imposed in 387, by Theodosius, the people were much enraged; and the cruelty of the governor, in restraining and punishing their faction, induced many of them to abandon their dwellings, and to retire with their wives and families to the neighbouring mountains. Some of them, however, returned; and to these St. Chrysoflem preached some of those admired homilies now in our possession; and these homilies are said to have had a great effect in reforming the licentious and diabolical.

Theodosius, when he heard of this tumult, commanded the city to be destroyed, and the inhabitants to be put indiscriminately to the sword; but the order was revoked; and he contented himself with inflicting a punishment similar to that of Severus at a former period. Numbers, however, were condemned; and St. Chrysoflem interposed to obtain for them a reprieve. At last a general pardon was obtained, and the city was restored to its former privileges. Antioch suffered from earthquakes in the years 458 and 526; but when Chosroes, king of Persia, invaded Syria in 540, the city, disdaining the offers of an easy capitulation, was taken by storm, the inhabitants slaughtered with unrelenting fury, and the city itself delivered to the flames; those who escaped were carried into Persia, and sold as slaves. Having again recovered, in a great degree, its former splendour, it was visited with an earthquake, A. D. 587, by which 30,000 persons lost their lives, and the city was almost wholly destroyed. In 611, it was seized by Chosroes II.; but "the aged metropolis, so often overturned by earthquakes and pillaged by the enemy, could supply but a small and languid stream of treasure and blood." In 638, Antioch was reduced by the Saracens, and razomed with 300,000 pieces of gold: but "the throne of the successors of Alexander, the seat of the Roman government in the east, which had been decorated by Caesar with the titles of free, and holy, and inviolate, was degraded, under the yoke of the caliph, to the secondary rank of a provincial town." It was re-

covered by the Greeks under Nicephorus Phocas and John Zimicces, in the 10th century, and again restored as a permanent and useful accession to the Roman empire. But the civil divisions in the empire afforded to the Turks an opportunity of feising upon Antioch, as well as the whole kingdom of Syria; and from them it was taken by the crusaders, A. D. 1098. In 1263, it was taken by Bifar, sultan of Egypt, and then its glory terminated.

Antioch, called by the Arabs Antakia, anciently so renowned, is now no more than a ruinous town, the houofs of which built with mud and straw, and confining of narrow and miry streets, exhibit every appearance of poverty and wretchedness. It is situated on the southerm bank of the Orontes, at the extremity of an old decayed bridge, and is covered to the south by a mountain, upon the slope of which is a wall built by the crusaders. The distance between the present town and this mountain may be about 420 yards; and the intervening space is occupied by gardens and heaps of rubbish.

Antioch, however, seems to be better calculated than Aleppo, which is become the metropolis of these eastern parts, to be the emporium of the Europeans. By clearing the mouth of the Orontes, which is six leagues lower down, boats might be towed up that river, though they could not fail up, as Pococke has asserted, its current being too rapid. The natives, who never knew the name Orontes, call it, on account of the fruitful of its stream, El-Agh, that is, the rebel. Its breadth at Antioch is about 40 paces. Seven leagues above the town it passes by a lake abounding in fish, and especially in eels. Many of these are fished every year; but the quantity is not sufficient for the numerous falls of the Greek christians. We no longer hear at Antioch either of the grove of Daphne, or of the voluptuous scenes of which it was the theatre.

The walls of each quarter of Antioch, as well as those which surrounded the whole, are still remaining; but as the houses are destroyed, the four quarters appear like so many inclosed fields.


There were many other ancient cities which bore the name Antiochia. Stephano, de Urbibus, and Hultatinus, in Dionyl, p. 170, enumerate 14; and others, particularly Ap- ianus in Syriacus, mention 16 cities distinguished by this appellation. Of those we may mention, Antioch of Pidía, as it was usually denominate, though it was situated in Phrygia, near Pidía, or in the northern part of Pidía; this was a Roman colony, and called also Cafara. It is mentioned by Strabo and Ptolemey; and also by St. Luke, Acta xxii. 14. Another was of Caria, situate on the Mender river, at the confluence of this with the Confinos, north- west of Aphrodisius. According to Stephan. Byz. it was also called Phythopolis, and Nylia or Nyla; which, according to Strabo, was near Trales. This was built by Antio- chius, the father of Seleucus, and was a bishop's see. An- other was of Cilicia, in that part called Trachæa, on the borders of the sea, at the foot of Mount Cragus. Ste- ph. Byz. is mistaken in placing this city near the Pyramus, which
which watered Cilicia Canpeftris. There was also another town of this name in Cilicia, situate on the Sarus, and an-
cently called Adam; but Antiochus Epiphanes gave it his
name, about 171 years before Christ. It was famous under
the emperor Titus Antoninus, and distinguished by hono-
rary titles. The Itineraries place it 57 Roman miles from
Tarus, and 18 miles from Mopsucaea. Another Antiochis
was situated in Mesopotamia, at the foot of mount Mafius,
according to Strabo, and the name of Nithis. A city of
this name is placed by Steph. Byz. between Cæcophyra
and Arabia; and Berkelius says, it was the same as with
Gadaara. Another Antiochis was situated in the province of
Syria, called Comagine, at the foot of mount Taurus, to the
west of Samoata, and at a distance from the Euphrates, where
Pliny places it. Antiochis was also the name of Edcilla.
Pliny places a city of this name in Sittacena, which Har-
doun supposes to be that which Polyenius calls Apollonia.
Another Antiochis was in Margiana, called Alexandria,
after the name of its original founder, but re-established
by Antiochus, son of Seleucus, who gave it its own name.
Antiochis was also, according to Polybius, an island in
the entrance of the Thracian Bosporus. Stephanus Byz. says,
that there was also a city of this name in Scythia.

ANTIOCHAS, in Entomology, a species of papilio that
inhabits South America. The wings are black, with two
white bands on the anterior pair. Fabricius, Gmelin, &c. Papi-
lio clytias of Cramer is considered as a variety β of this species.

ANTOIOCHE, in Geography, a channel in the Atlantic.
Atlantic coast, near the northern part of the island Oleron,
and on the southern of the island of Rhé. ANTOIOCHETTA,
a town of Aziatic Turkey, on the coast of Caramania, and
nearly due north from the western end of the island of Cyprus. It is a bishop's see. N. lat.
36° S. E. long. 22° 15'.

ANTIOCHIA, a town of South America, in the king-
dom of Popayan.

ANTIOCHIAN, feb; or academy, a name given to the
fifth academy, or branch of academies.
It took the denomination from its being founded by An-
tiochus, a philosopher contemporary with Cicero.
The Antiochian academy succeeded the Philonian. As
in points of doctrine, the philosophers of this sect appear to
have refuted those of the ancient academy, except that in
the article of the criterion of truth, Antiochus was truly a
Stoic, and only nominally an Academic. After his time,
the professors of the academic philosophy were divided by
the tumults of war, and the school itself was transferred to
Rome. See ANTIOCHUS.

ANTIOCHIAN epocha, in Chronology, a method of com-
puting time from the proclamation of liberty granted the
city of Antioch, about the time of the battle of Pharalba.

ANTIOCHIS, in Ancient Geography, a tribe of Greece,
in Attica.

ANTIOCHUS Soter, in Ancient History and Biography,
was the son of Seleucus Nicator, by Apama, the daughter
of Artabazus the Persian; and took possession of the
empire of Asia, on his father's death, and held it for 19
years. He is chiefly recorded in history on account of his
passion for Stratonicus, his mother-in-law. Fearing to dislo-
cate his attachment, he fell into a lingering disease, which
dangerous his life. But the affection of his father induced
him to employ the celebrated physician, Erasistratus, to di-
cover the cause of his disorder, and to administer necessary
relief. The physician soon perceived, by the changes of his
culture and countenance whenever Stratonicus entered the room,
the occasion of his complaint; and he pretended to the father,
that Antiochus was in love with his wife, and at the fame
time expressed his concern, that his malady admitted of no
cure. Seleucus remonstrated, and strongly urged the phy-
ician to preserve the life of his son by yielding to his wishes.
"Would you do so (said Erasistratus) provided Strato-
nicus were the object of his affection!'—"Molt willingly," replied
the king.—"The cure then (rejoined Erasistratus) is in
your own power:" and when he discoursed to him the secret.
Seleucus fulfilled his promise, and rejoined the beautiful
Stratonice to his son, together with a considerable part of his
dominions; and cauèd them to be crowned king and
queen of Upper Asia. Upon the death of his father, he
succeeded to the whole empire, and reigned at Antioch.
Having surrendered his pretensions to Macedon in favour
of Antigonus Gonatus, on his marrying Phila, the daughter
of Stratonice by Seleucus; and after this defeated the
Gauls, who had settled in Lower Asia, when he obtained
from these provinces the title of Soter, or Saviour. He
himself was afterwards defeated by Eumenes king of Per-
gamus; and after this defeat returned to Antioch, where he
put one of his sons to death, for raising disturbances in his
absence; and at the same time proclaimed the other, called
Antiochus, king of Syria. He died on the 1st of the month
before Christ, 261. Anc. 

ANTIOCHUS THEOS, or God; so called by the flattery of the
Milicians, for delivering them from Timarchus; was the
son of the preceding Antiochus by Stratonice, and suc-
ceeded his father in the sole possession of all his dominions.
In the third year of his reign, a bloody war broke out be-
 tween him and Ptolemy Philadelphus, king of Egypt, on occa-
sion of an insult offered to Apamea, father of Antiochus, and
widow of Magas king of Cyrene and Libya. During this
war, the Parthians revolted, and putting themselves under the
conduct of Arsaces, drove out the Macedonians; and thus laid
the foundation of the Parthian empire, which at length
became formidable not only to all the Princes of the East,
but even to the Romans. The Bactrians also, under Theo-
dotes, and the other nations in those parts, shook off the
Macedonian yoke, and elected princes of their own; and
thus Antiochus lost all the provinces of his empire lying
beyond the Euphrates. In these circumstances of defection
and disaffection, Antiochus concluded a treaty of peace with
Ptolemy, on the condition of divorcing his former wife
Laodice, who was his own sister by the father, and marrying
Berene, the daughter of Ptolemy, and setting the crown
upon the male issue of that marriage. The nuptials were
solemnized with extraordinary magnificence at Seleucia.
Within two years after this marriage Ptolemy died, and
Antiochus repudiated Berene, and restored Laodice, who
embraced this favourable opportunity of securing the suc-
cession to her son. With this view, the caufed Antiochus to
be poisoned, and employed Artemon, who much resemb-
l in his voice and features, to be placed in his bed, the
body of his deceased husband being secretely conveyed away.
To complete this stratagem, Artemon strongly recommended
his son Laodice and her children to the lords that visited
him. Accordingly, in the name of Antiochus, hipped to
be ill alive, orders were issued that all his subjects should
obey his beloved son Seleucus Callinicus, and acknowledge
him for their lawful sovereign. The crown being thus
secured, the death of the king was publicly declared, and
Callinicus, without opposition, ascended the throne.
Antiochus died in the year before Christ 246, after a reign
of 15 years. Laodice finished her infamous career by the murder
of Berene and her son. Anc. 

ANTIOCHUS the Great, so called in account of his illu-
trious actions, was the son of Seleucus Callinicus, and suc-
ceeded his brother Seleucus Cerranus, in the year before
Christ
Antiochus.

Chrift 225. After the troubles with which his reign commenced, and which were terminated peaceably by his activity, his attention was engaged by the revolt of his uncle Achaeus, who usurped the sovereignty of Aia Minor; and by a confederacy of Ptolemy Philopator, king of Egypt, for the recovery of Cœle Syria. He first resolved on a war with Ptolemy, which, after several advantages gained by him, terminated by a defeat in the decisive battle of Raphia, in the year before Chrift 217, which obliged him to abandon all his conquests, and to withdraw, with the remains of his shattered army, to Antioch. The result was a negotiation for peace, which Antiochus obtained, on the condition of surrendering to Ptolemy the whole of Cœle Syria and Palestine. His next object was Achaean, whom he obliged to quit the field, and to flit himself up in the castle of Sardis; but he was at length delivered up by treachery to Antiochus, who, whilst he compassionated the misfortunes of a man to whom he was indebted for his crown, ordered him to be beheaded, and thus put an end to the war of Achaean. Antiochus was now at liberty to pursue his plans for the reduction of those provinces in the east, which had shaken off the Syrian yoke. Accordingly he recovered Media and Parthia, and reduced Siringis, the capital of Hyrcania. Arfaces, however, was a formidable enemy; and he therefore made overtures to him for putting an end to the war; the consequence of which was, that it was agreed by treaty, that Arfaces should hold Parthia and Hyrcania, on condition of his assisting Antiochus to recover the other provinces which had revolted. He also, in a similar manner, concluded a peace with Euthydemos king of Bactria. After this pacification, he crossed Mount Caucasus, and entered India, where he renewed his alliance with Sophagarean, king of that country; and having marched through Arachosia, Drangiana, and Carmania, he returned by Persia, Babylonia, and Mecopotamia, to Antioch, after a successful expedition of seven years, and with the surname of Great, which he had acquired, and which he might have retained, with the reputation annexed to it, till his death, if he had not unfortunately engaged in a war with the Romans.

Soon after the return of Antiochus, Ptolemy Philopator died, and was succeeded by his son Ptolemy Eiphanes, a child of five years. The youth of the sovereign of Egypt prefented to the ambitious views of Antiochus objects which were too alluring to be refi- d. Antiochus, however, was a favourable opportunity, not only for recovering his lost provinces, but for seeking further aggrandisement. Accordingly he entered into a treaty with Philip king of Macedonia, in virtue of which they were to deprive the infant king of his dominions, and to divide them: Philip was to have Caria, Lybia, Cyrene, and Egypt; and Antiochus all the rest. Antiochus, having fetted these preliminaries, marched into Cœle Syria and Palefince, and soon subdued them. But it so happened, that at this time Scipio had concluded the second Punic war; and the fame of the Romans was every where spread. The guardians of the young king, incited by the celebrity of the Roman name, sent an embassy to Rome, imploring the protection of that republic, and offering the guardianship of their king, and the regency of the kingdom during his minority. The Romans acceded to the proposal, and immediately signified their compliance to Antiochus and Philip, requiring them to desist from invading the dominions of their pupil, and threatening war upon them for his protection. Arilomenes, an old experienced officer, was appointed the young king's minister, and he deputed Scopas to levy troops in Etolia, for the service of his master. These troops marched, during the absence of Antiochus, into Palestine and Cœle Syria, in order to recover those provinces; but after some success, Antiochus returned, defeated Scopas, with the loss of the greatest part of his army, and obliged him to surrender Sidon, into which he had retired, with the whole garrison. Antiochus was cordially received by the Jews; and on his approach to Jerusalem, treated with the utmost respect and hospitality. In return, Antiochus granted them many privileges and favours. Antiochus proceeded from Palestine to Aia Minor; and as he failed with a formidable fleet along the coast of Cilicia, Pamphylia, Lycia, and Caria, many of the maritime cities of those provinces voluntarily submitted to him. He then failed to Ephesus, made himself master of it, and took up his winter-quarters there. In the mean time Smyrna, Lamphactus, and other Greek cities of Aia, which at that time enjoyed their liberty, concurred in imploring the protection of the Romans, who were at last prevailed upon to exert themselves in restraining the progress of Antiochus. But during this embassage, Antiochus crossed the Hellepont, and landed all Thracian Chersonesus. The much which those cities solicited was delayed, and much time was lost in ineffectual negotiation; till at length, in the year before Chrift 195, Hannibal fought the protection of Antiochus, and engaged him to make war on the Romans. Antiochus strongly urged himself by new alliances; having married his daughter Cleopatra to Ptolemy king of Egypt; and Antiochus, his second daughter, to Ariarathes king of Cappadocia. After fruitless embarkations between him and the Romans, he formed the fatal resolution of commencing a war with them. Hostilities were mutual, and successes for some time was doubtful; but the fleet of Antiochus having been defeated by that of the Romans, and his troops having been withdrawn from the Hellepont, the two Scipios, Cornelius and Africanus, found a free passage into Aia. The king was alarmed, and made propostals of accommodation to the Romans, which, although very advantageous to them, were rejected. He also restored, without condition, the son of Africanus; and the grateful father acknowledged his obligations, by deeming him not to hazard a battle before his return to the army. But a decisive engagement took place at Magnesia, in Lower Aia; Antiochus was completely vanquished, in the year before Chrift 190: and compelled by the circumstances to which he was reduced, to sue for peace. The terms were his giving up all his pretensions on Europe, limiting his Asiatic dominions to the country beyond Mount Taurus, and paying the expenses of the war. The surrender of Hannibal was also stipulated, but he had made his escape. The Syrian monarch did not long survive this humiliation: the manner of his death is not satisfactorily ascertained. Jerom, on the authority of Strabo, says, that having plundered the temple of Jupiter Belus, in the province of Elemais, he was slain in an insurrection of the people. Aurelius Victor relates, that he gave himself up to every kind of diffolute pleasure; and that he was killed at an entertainment by one of his guests, whom he had insulted. He died, however, in the year before Chrift 187, in the 27th year of his reign, and 52d of his age; and he is highly commended by most of the ancient historians for his humanity, clemency, and liberality. Till the 50th year of his age, his prudence in counsel, and courage in action, were such as to command successes, and entitle him to the appellation of "Great," but after that age, he was less wise and valiant, and less prosperous. His conduct in the war with the Romans, the contempt with which he received the wife counsel of Hannibal, and the ignominious peace which he was forced to accept, obscured all the glory of his former expeditions. The prophecies of Daniel, from the 17th verse of the 11th chapter to the 19th, inclusive,
Antiochus, in the year before Christ 176. It was one article of the humiliating treaty of Magna Graecia, that this prince should be sent to Rome as a hostage; and there he was detained for 13 years, till he was exchanged for his brother's son Demetrius. In his way home, his brother Seleucus was poison'd by Heliodorus, who usurped the crown. But aided by Eumenes, king of Pergamus, and Attalus that king's brother, he drove out the usurper, and ascended the throne. His conduct was foolish and extravagant to an extreme degree; and besides the frantic follies with which he was chargeable, he was addicted to drunkenness, squandered away large sums of money in riotous excesses; and in his mad frolics, scattered handfuls of money among the populace, crying out, "Let him take it to whom fortune gives it." This odd and extravagant conduct, of which many singular influences are recited, made his subjects regard him as a madman; whence, instead of "Epiphanes, or the Illustrious," the title which he allclaimed on being settled on the throne, they used to style him "Epiphanes" that is, "the Madman." Soon after his accession, a demand was made by the administration of Egypt for the restoration of Cæsarea and Palestine; and this demand occasion'd a war between the two courts. Antiochus determined to anticipate the preparations made in Egypt, by a commencement of hostilities, and by an actual invasion of the country; and, at the same time, he sent a splendid embassy to Rome to justify his conduct, and to conciliate the favour of the senate. In his first expedition, he routed the Egyptians, and wintered at Tyre. In a second campaign, in the year before Christ 175, he reduced the whole country, except Alexandria, and gained as much by his clemency as by his arms. On this occasion, Ptolemy Philometer fell into the hands of the conqueror; and the Alexandrians, considering him as lost to them, placed upon the throne his younger brother Ptolemy Euergetes, called also Phylcon; and made attempts to recover their country from the Syrians. Antiochus was thus induc'd to make a third expedition into Egypt, and advanced directly to Alexandria, with the design of besieging it. In this danger, Ptolemy Euergetes, and his sister Cleopatra, sent an ambassador to Rome to supplicate assistance. The senate determined to give them relief, and accordingly sent an embassy into Egypt for the purpose of terminating the war: and the instructions of their ambassadours were, to order the contending princes to suspend all hostilities, and to put an end to the war, on pain of forfeiting the friendship and alliance of the Romans. Antiochus, in the mean time, had made a pacification with Philometer, and engaged to restore him to the possession of his dominions, Pelusium excepted. He then returned to Antioch; but during his absence, the two royal brothers agreed, under the influence of Cleopatra's mediation, to reign jointly, and to renounce their dependence on Antiochus. This produced a fourth expedition into Egypt; and the Syrian king was halfly marching towards Alexandria, after having reduced the greatest part of the country, when he was met by the three Roman deputies. The decree of the senate was announced to him, and he defined some time for deliberation. Popilius, one of the deputies, drew a circle with a rod, which he held in his hand, round the king, and informed him that he expected a peremptory answer before he left that ring. Antiochus hesitated for a few minutes, and then declared his readiness to comply with the requisition of the republic. The three deputies gave him their hands, and Popilius renewed his former familiarity with him. Antiochus was probably not a little exasperated, though he was obliged to submit; for on his return from Egypt, he visited Jerusalem, and with extreme cruelty compelled the Jews to violate the principles of their religion and worship at the heathen altars which he had caused to be erected. In a former expedition, he had taken Jerusalem by storm, plundered and defiled the temple, and abolished the Jewish rituals. These violence, which are related in the books of the Maccabees, occasion'd the revolt of Mattathias and his sons; which for a long time filled that country with bloodshed, and defied the whole power of Syria.

With a view of further ingratiating himself with the Romans, he celebrated their festivities of the kingdom of Macedon under Perseus, bycausing games to be exhibited at Daphnæ near Antioch, with a pomp and magnificence which even in that luxurious part of the world had never before been witnessed. The king's conduct was so extravagant and absurd on this occasion, that Tiberius Gracchus, the Roman envoy at his court, informed the senate, that they need be under no apprehensions from any design which he could form. Nevertheless, on a revolt of Armenia and Persia, he left part of his army under Lyfias to reduce Judea, and marched with the rest against Artaxias, the Armenian king, whom he defeated and took prisoner. From Armenia he marched into Persia, and flew to Elam, of the immense wealth of which he had received information, with a design to plunder both the city and the temple. Here he was repulsed with the greatest ignominy; and mortified at the disgrace he suffered, he withdrew to Ecbatan in Media. But news arriving of the defeat of Nicander and Timotheus, two of his generals in Judæa, he hastened towards Babylon; and was met in his piquage by two messengers, who gave him an account of the defeat of Lyfias, and that the Jews had retaken the temple, thrown down the images and altars which he had erected, and restored their former worship. These tidings exasperated him beyond measure; and he determined to march in person against the Jews, and threatened to extirpate the whole nation. He had fiercely uttered these words, when he was feiz'd with an excreting pain in his bowels, which no remedy could cure or alleviate. He resolved, however, to proceed; till at length he was obliged to halt at a town called Takba, on the confines of Persia and Babylon; in the year before Christ 165, where he expired, after languishing for some time in the most dreadful agony both of mind and body, in the 36th year of his reign, and 39th of his life. The 11th chapter of Daniel, from the 20th verse to the end, wholly relates to this Antiochus. Anc. Un. Hist. vol. viii. p. 105, 213.

Antiochus Eupator, was the son of the preceding, and placed on the throne at the age of 9 years, on the death of his father, by Lyfias; though the deceased monarch had appointed Philip, his prime minister, for his guardian. Philip retired into Egypt; and Lyfias profecuted the war with the Jews which Epiphanes had begun; but the large army which he conducted thither was defeated by Judas Maccabæus.

From another expedition into Judea, and the siege of Jerusalem, he was recalled by the intelligence, that Philip had taken possession of Antioch, and riz'd on the government. Lyfias made peace with the Jews; and having marched against Philip, defeated him, and put him to death. In the mean time the Roman senate had assumed the tutelage of the young king, and sent a commission of guardianship into Syria, with orders to burn all the decked ships, and dispose the war-elephants. Octavius, who was appointed chief of this commission, and who executed his orders with great in-
olanoe, was killed in a popular tumult at Laodicea; and buried with great pomp by Lyfias, who dreaded the indignation of the senate, and sent ambassadors to Rome for his own excommunication. At this time Demetrius, the son of Seleucus Philopator, who had the best right to the crown, but who was kept at Rome as a hostage, contrived to make his escape; and arriving in Syria, was received everywhere by the people as their lawful sovereign. Lyfias and the ineffectual Emperor were delivered by their own soldiers to Demetrius, who ordered them both to be put to death, in the year before Chrifl 162, after the young prince had reigned between two and three years. The author of the first book of the Maccabees says, they were taken prisoners by the soldiers of Demetrius, and by them put to death, without any orders from Demetrius. Anc. Un. Hist. vol. vii. p. 212.

Antiochus Sidetes, or the Hunter, was the second son of Demetrius Soter, and succeeded to the throne, vacated by his brother Demetrius Nicator, after the expulsion of Tryphon the usurper, by the interest of Cleopatra, the wife of Demetrius, whom he married, and the alliance of Simon, high priest of the Jews, in the year before Chrifl 138. After his accession, he reduced all those cities of Syria which had rendered themselves independent during the interregnum. He then made war with the Jews, besieged Jerusalem, and compelled Hyrcan, who had succeeded his father Simon, to purchase a peace, on the condition of paying tribute. He then entered Parthia, with a motley multitude of cooks, fitters, women, and other minillers of luxury, much more numerous than his soldiers, defeated Phraates, and regained the provinces which he had separated from the Syrian empire. But his troops being dispersed into distant winter-quarters, the oppressed people, joined by the Parthians, confpired to attack them all in one day; and Antiochus, and every man under his command, were destroyed. Others say that he could not survive the disgrace of being vanquished in battle, and that he put an end to his own life. This happened in the ninth year of his reign, before Chrifl 130. Although Antiochus was addicted to intemperance and ammendment, he is represented as a prince poffefling many good qualities, a lover of justice, and inclined to clemency. Phraates, on viewing his dead body, is said to have exclaimed, "Your wine, Antiochus, and your too great confidence, have brought you to this untimely end. You thought you could have swallowed the kingdom of Arfaces in your cups." Anc. Un. Hist. vol. viii. p. 242—245.

Antiochus Grypus, or book-eater, was the son of Demetrius Nicator by Cleopatra; and on the death of his brother Seleucus, whom his mother, jealous of her power, caused to be murdered, was recalled by her from Athens, where he had been sent for his education, and proclaimed king of Syria, in the year before Chrifl 123, to the exclusion of Alexander Zabin, who had usurped the throne, and whom Grypus afterwards put to death. Cleopatra had advanced Grypus to the throne, with a view of removing the authority to herself, and of allowing him the mere title of king. But when he began to manifest an inclination to govern independently of his mother, she determined to transfer the crown to a younger son, and to dispach this by poison. For this purpose she prepared a bowl, and presented it to the young king on a day when he returned hot and weary from the chase. But as he was forewarned of his purpose, she defied her to take the first draught; and on her refusal, he summoned the lords of his court, communicated to them the information he had received, and then said, that the only mode by which she could expiate her

self, was to drink what she had prepared for him. She drank, and presently expired. After her death, Antiochus enjoyed the sovereignty of Syria for eight years without disturbance; but there arose a rival, viz. Antiochus the Cyzicene, the son of Cleopatra by Antiochus Sidetes. The confedence of this rivalship was a civil war, which terminated in the division of the kingdom. Having thus settled their difference, they both devoted themselves to voluptuousness and debauchery, and totally neglected both their private and public concerns. This negligence on their part gave John Hyrcan an opportunity of making conquests upon Syria; and the subsequent disagreement of the two brothers afforded occasion for several cities to assert their independence. At length Grypus was assassinated by one of his own subjects, in the 43d year of his age, in the year before Chrifl 97, after having reigned, according to Josephus, 29, and according to Porphyry, 26 years. Cyzicus, some years after, was defeated and slain by his nephew Seleucus. Anc. Un. Hist. vol. viii. p. 245—253.

Antiochus, a monk of Saba in Palestine, of a very superfluous complexion, lived towards the beginning of the seventh century; and wrote a summary of the religious doctrines, intitled "The Pandect of the Holy Scriptures," in 120 homilies. In the preface, he mentions the capture of Jerusalem by Chofroes, king of Persia; and relates the cruelties inflicted on the monks of Palestine; and in an anec-}

domesticated a new insect, described by professor Gerbi, in a small work published at Florence in 1794; so called from its property of allaying the tooth-ach. It is a kind of curculio, and found on a species of thistle, carduus spinosissimus, which is perhaps a variety of the...
the enamel. Its flowers, when analysed, gave the acid of falts, the muartic acid, oxalate of lime, extractive matter, and a very little resin. The insect eats not only the parenchyma, but also the vessels and fibres of the leaves. It is of a longish figure, covered below with short yellow hair, and above with golden, yellow velvety spots. Its corect is variegated with specks, and the covering of its wings with specks and stripes. It has a short proboscis, and somewhat resembles the curculio villiis of Geoffroy. Its larva represents a sort of ichneumon. If 12 or 15 of these insects, in the state of larva, or when come to perfection, be bruised and rubbed slowly between the forefinger and thumb, until they have lost their moisture; and if the painful tooth, where it is hollow, be touched with that finger, the pain ceases, sometimes instantaneously. A piece of flannel leather will answer the same purpose with the finger. If the gums are inflamed, the remedy is of no avail. Other insects possess this property of curing the tooth-ach: such as the carabus ferrugineus of Fabricius; the coccinella septempunctata, or lady-bird; the chrysoloma populi, and the chrysoloma fanguinolenta. This property seems to belong to several kinds of the coleoptera.

ANTIOPE, a species of pappilio that inhabits Europe. The wings are angulated, black, with a whitish border. Linn. Faun. Suec. Fabricius, &c. This is pappilio maxima nigra, also utirique limbo illo ab humilis Ray, &c.; and is known by the English name of Camberwell beauty butterfly. The dark colour of the wings inclines to a rich purple-brown, the external border to yellowish; and it has an intermediate black stripe, with a row of brindled spots, and two very yellowish spots on the anterior margin of the first wings. It is produced from a black spiny larva, that is marked on the back with a row of ferruginous spots, and feeds on the willow. It is remarkable, that the insects of this species found in England have the external border of a paler colour than those found in other parts of Europe, though in other respects they are perfectly similar. Donovan's British Insects, vol. iii. p. 47.

ANTIOPE, in Fabulous History, the wife of Lycurgus king of Thebes, who, being deflowered by Jupiter in the form of a fayre, brought forth Amphin and Zethus. Another Antiope was queen of the Amazons; and, with the assistance of the Scythians, invaded the Athenians, but was vanquished by Theseus.

ANTIOPIA, in Ancient Geography, an ancient town of Palæstina, in the tribe of Naphath, towards the frontier of Aser, between Tyr and Bethpharaoh. It was once a principal city of the Canaanites, but is now reduced to a miserable village.

ANTIPACHSU, in Geography, a small island on the coast of Epirus, over against the gulf of Arta, between Corfu and Cephalonia.

ANTIPÆDO-BAPTISTS, derived from ant, against, παρεξ, παρά, εχθρός, εχθρίς, and βάπτιστης, baptism, whence βαπτιστής, is a distinguished denomination given to those who object to the baptism of infants; because, they say, infants are incapable of being instructed, and of making that profession of faith which entitles them to this ordinance, and an admission into church communion. See ANABAPTISTS and BAPTISTS.

ANTIPAGMENTS, Antipagmena. See Antepagmena.

ANTIPAPINIANUS, antipapinianus, a title given by the Greek lawyers to the fourth part of the Digest, including four books, beginning with the title De paginiarum. This is otherwise called antipapianus. The antipapianus was thus denominated, not as being intended in opposition to Papinian, but because it was to serve in the schools in the civil law in lieu of the books of that lawyer, pursuant to an edict of the emperor Julian; so that the antipapapianus was so far from being a refutation of Papinian, that it was only a substitute for his writings, which were not so proper for the use of the younger sort of students.

ANTIPARALLELI, in Geometry, are those lines which make equal angles with two other lines, but in opposite directions. Thus, if AB and AC (Plate 11. Geometry, fig. 27.) be any two lines, and FC and FE be two others intersecting them in such a manner, that the angle B is equal to the angle E, and the angle C equal to the angle D, then BC and DE are antiparallels, with respect to AB and AC; and these latter are antiparallels with regard to the two former. It is a property of these lines, that each pair cuts the other into proportional segments, if they be taken alternately, viz. AB : AC :: AE : AD :: DB : EC, and FE : FC :: FB : FD :: DE : BC. M. Leibnitz, however, calls those lines antiparallels, which cut two parallels so, that the outward angle being added to the inward one, the sum may be equal to a right angle.

ANTIPARALYSIS, in the Materia Medica, medicines fitted to cure the palsy.

ANTIPARASTASIS, from αντι and παράστασις; of παράστασις, I exhibit, in Rhetoric, a reply to an opponent, by allowing part of his argument, and denying the rest, e. g. "you may print whatever you please, provided the public suffer no prejudice from it; but you must not, if it does."

ANTIPAROS, in Geography, an island in the Archipelago, opposite to Paros, and separated from it by a strait about seven miles wide. This is the ancient Olaros, which was established by a colony of Sidonians. It is narrow and long, extending in a direction from north-east to south-east; and, according to Tournafort, about 15 miles in circumference; its soil is tolerably fertile, and produces for its own supply wheat, barley, wine, sasfinum, and some legumes; but the most considerable production, and that which enables the inhabitants to pay their impost, is cotton. What renders Antiparos particularly famous is the grove, which penetrates into its bosom to a very great depth; and which, according to the relations of the Greeks, communicates beneath the waters with some neighbouring islands. Magni, an Italian traveller, who first discovered this subterraneous grove, has given an account of it; Tournafort has also described it with great exactness; and M. de Choiseul-Gouffier has given some very beautiful drawings of it in his "Voyage Pittoresque de la Grèce."

We first find a ruthless cave, about 30 feet wide, divided by some natural pillars; between which the ground slopes gently, and then more precipitately to the bottom of the cavern. At last the defcent is by a ladder to the grove itself, which is about 300 fathoms below the surface of the earth; and it appears to be about 25 fathoms high, and 50 wide. It is full of large and beautiful stalactites, hanging from the roof, and covering the floor. Olivier (Travels, p. 121.) queries, whether it ought to be considered as a quarry, from which marble has been extracted for a length of time, or as in impenetrable cavern, such as naturally exist in most calcareous mountains.

ANTIPAS-Herod. See Herod.

ANTIPASCHA, in Ecclesiastical Writers, denotes the first Sunday after Easter; otherwise called Dominica in allis.

ANTIPATER, in History and Biography, was a native of Iduma; and, having acquired wealth and influence in the Jewish state, joined the Pharisees against Aristobulus the high
high priest, in favour of his brother and competitor Hyrcan. He also engaged Aretas, the Arabian king, to invade Judaea, where he was strengthened by Hyrcan's party; and totally defeated Artilobulus, who was forced to fly into Jerusalein, and await the event of a close siege. In these circumstances Artilobulus applied to the Romans for succour; and Scærus, the Roman general, was induced by a considerable bribe to desert Artilobulus, and thus to induce him to lead his army out of Judaea. He was afterwards overtaken by Artilobulus, and defeated with great slaughter.

When Pompey arrived in Syria, in the year before Christ 62, the two brothers, Artilobulus and Hyrcan, appeared before him, and urged their respective pleas: but the decision was deferred, and Artilobulus departed in disgust.

When Pompey entered Judaea, he summoned Artilobulus, who had raised a considerable army, to appear and to answer for his conduct; but being dissatisfied with the terms of conciliation that were proposed to him, he fled with haste to Jerusalem, and was soon followed by Pompey, who laid siege to the city, and, after an obstinate resistance, took it. On this occasion, 12,000 of the besieged were slaughtered by the Romans, besides many more who died by their own hands. During this horrid scene, the priests never intermitted the divine service in the temple; and at last suffered themselves to be butchered before the altar, with as much meekness and constancy as the victims they were then offering.

Hyrcan was restored to the pontifical dignity, with the specious title of prince, though from thenceforth tributary to Rome; but he was wholly directed of his regal power, and forbade to resume either the diadem or royal style, or to extend his territory beyond the old borders of Judæa. Artilobulus and his two sons, Alexander and Antigonus, together with his two daughters, were taken by Pompey to Rome, as captives to adorn his triumph. The insolence of Hyrcan led him to commit the management of his affairs to Antipater, who artfully contrived to ingratiate himself with the Romans, and to promote the aggrandizement of his own family. With these views he gave successive alliance to Scærus, Gabinius, and Cassius, the Roman generals who commanded in those countries. He also facilitated the capture of Pelusium by the forces which he afforded to Julius Caesar, and he was one of the foremost in sealing it, when this city was taken by assault. Mithridates, in a letter to Caesar, acknowledged that his successes were owing to the co-operation and valour of Antipater; and in recompense of his favours. Caesar gave his son-in-law a province in the army, and made him procurator or lieutenant of Judæa, and citizen of Rome. Antipater, having accompanied Caesar to Tyre, where he embarked for Sicily, returned to Jerusalem, and exerted himself in restoring the Jewish government to its ancient model, and repairing the walls and fortifications. He also made his eldest son Phasael governor of the metropolis, and appointed his second son, Herod, governor of Galilee. This growing power, however, excited the envy and jealousy of the principal Jews; and at length Malchus, who had been of the same party with Antipater, and who had concurred with him in the support of Hyrcan's interest, resolved to take him off by treachery. Antipater, being apprized of his design, retired beyond Jordan, and put himself in a posture of defence; but Malchus contrived by various stratagems to remove his suspicion, and to effect a reconciliation with him; and Antipater, by his interest with Marcus, governor of Syria, prevented his being put to death. The jealousy and envy of Malchus were inflamed, but not extinguished; and he embraced the first convenient opportunity that offered of bribing the butler of the high priest to poison him with a glass of wine, whilst with an armed force he feized upon the government of Jerusalem. This event happened in the year before Christ 45. Antipater, the Macedonian, was a person of noble birth, and distinguished by his natural talents and excellent education. He was the friend and disciple of Aristotle, learned, and a lover of learning; magnificient in his actions, but plain in his drees and behaviour, never varying his habits during the whole time of his government, but appearing like a private person when he gave laws to kings. Philip of Macedon selected him as his minister, and confided in him as his friend. "I have kept fondly," said he, "for Antipater was waking." And Alexander, referring to his plain garb, replied to those who observed to him, that all his great officers, except Antipater, were purple; "True; but Antipater is all purple within." During the absence of Alexander, on occasion of his expedition into Asia, the government of Macedon was given to Antipater; and he was supported even against the interference of Olympias, Alexander's mother. He also maintained the tranquillity of all Greece; and marching with a considerable force against Agis III.'s king of Sparta, who had united several of the Greek fleets against the Macedonians, he defeated the Spartan king, and by a single action terminated the war.

After the death of Alexander, when the empire was divided by a general council summoned by Perdiccas, the government of the European provinces was assigned to Antipater, as general of the army in that continent. In consequence of an edict of Alexander, which directed all the cities of Greece to recall their exiles, Antipater was soon engaged in a war, in which the Athenians were particularly active, and in which they were at first unsuccessful; so that they compelled him, after a defeat, to retire to Larisa, a strong city, near the field in which their armies had been engaged. But Antipater, receiving assistance from Asia, was rescued from confinement, and the siege being raised, he was joined by Craterus, and thus enabled to defeat the confederate Greeks. Athens, on his approach, was compelled to submit at discretion; and he abolished the popular government there, and established that of Solon, leaving a Macedonian governor in the place. He also litigated the revolt of the Grecian fleets on a similar plan of equity and moderation; and so much to general satisfaction, that he was honoured as the father and protector of Greece. Upon his return to Macedon, he directed his arms, in conjunction with his son-in-law Craterus, who had married his daughter Phillip, against the Eotians, the only perfons that had refused to be comprehended in the peace, and effected their purpose. They afterwards entered into a league with Ptolemy, and passed over into Asia, in order to control the power of Perdiccas, who had assumed the sovereignty. But Perdiccas being soon after slain in Egypt, Antipater was sent for to the army in Syria, and declared the sole protector of kings, and invested with sovereign power. Antipater next proceeded to make a new division of the provinces and then returned to Macedon, his own province, with the kings, leaving the army satisfied with his proceedings. Soon after his return to Macedon, he was attacked by a dangerous disease; which, at his advanced age, left him little hope of life. In his last moments he behaved with the same firmness and the same regard to his reputation which he had manifested in all the actions of his life. His great offices of protector and governor of Macedon he bequeathed to Polyperchon, the eldest of Alexander's captains then present; and his eldest son, Cæcander, he merely appointed to be a chieftain or colonel of a thousand men.

Antipater, bishop of Bithynia, an Arabian church, and flourished towards the end of the 5th century. He wrote a refutation of Eusebius's Apology for Origen, fragments of which are preferred in the acts of the second council of Nica. Fabr. Bib. Græc. l. v. c. 34. § 7. t. 9. p. 274.

Antipater. Lelius Coelius, a Roman historian, who lived in the time of the Gracchi, was the author of a history of the second Punic war, of which Brutus wrote an abridgment. He is often mentioned by Cicero. The emperor Adrian preferred Antipater to Sallust, probably for the same reason that he preferred Ennius to Virgil, because he was an admirer of the ancient Roman language. Fragments of this historian were published by Riccoboni in 1766, and reprinted with fragments of other historians, by Antony Angullia, at Antwerp, in 1790. Vol. de Hist. Lat. l. i. c. 8.

Antipater of Sidon, or of Tarfus, a Stoic philosopher, and also a poet commended by Cicero and Seneca, flourished about the 17th Olympiad, or 80 years before Christ. He was the disciple and succeessor of Diogenes the Babylo- nian; and his chief opponent was Carneades.

Antipater, an ancient physician of the sect of the methodists, died, as Galen relates, of a tubercle in his lungs. The tubercle occasioning an intermission of his pulse, which continued several months, Galen, from this circumstance, predicted that his death would be sudden, which accordingly happened.

Antipathes, among the Ancient Naturalists, was used to express any stone or gem, which, according to their superstitious ideas of the virtues of gems at that time, was supposed to have a power of refilling the force of enchantments. Phinies mentions a very valuable gem, called by the ancients antipathes for this very reason; and the black coral had the same name on the same account.

Antipathes, in Natural History, the name of a genus in the Zoophyta order of Vermes, the character of which, according to the Linnean system, is animal growing in the form of a plant; item within horny, with small spines; base expanded; the outside covered with gelatinous flesh, and numerous polypliherous warts. The species of the genus are spiralis, ulyx, subpinnata, myriophyla, clope- curoides, cupreus, orichalca, dichotoma, elathara, fa- belium, penneaca, ericoides, and funiculacea; which fece re- spectively.

Antipathy, compounded of ant, contra, against, and σπασειν, passion, in Physiology, a natural enmity or averse- tion of one body to another. In which sense the word stands opposed to sympathy. Such an aversion is commonly said to be between the falamander and the tortoise, the vine and the elm, the toad and the weasel, the sheep and the wolf, the olive and the oak, &c. Phil. Trans. N° 339.

In a more restricted and proper sense, antipathy denotes that natural aversion and detestation which an animated and sensitive being feels with regard to some object that is presented to it, either in reality or in imagination; and the cause of which is mysterious and inexplicable. Such are some of the antipathies mentioned in the last paragraph; and such also is the aversion to which some persons are conscious under the apprehension or at the sight of particular objects, as cats, mice, spiders, serpents, &c., &c. and which produces, whatever be the cause of it, sensible and apparent effects. Many influences of antipathies that have been recorded are, perhaps, no better than fables; and a severe examination would reduce them to the large class of vulgar errors. There are also fictitious aversions, which have no other source besides affection, and a pretended delicacy of nerves, which is more frequently feigned than real. Of these other antipathies, the existence of which is capable of being ascertained, and which produce sensible and undisputed effect, it is not difficult to assign a cause without recurring, with the Peripatetics, to any occult qualities inherent in bodies. In the credulous period of infancy, with what pains and industry are the minds of children impressed with the sense of the noxious qualities of particular animals, such as serpents and other reptiles; and how easily do they associate the ideas they are thus led to entertain of some objects, with others that resemble them in their visible form or general properties? When an aversion thus imbued in early life, or in consequence of some trivial act or injury, concurs with a feeble frame and irritable state of the nervous system, it will serve to account, with sufficient satisfaction, for the antipathies of advanced age, without recurring to any occult qualities and latent principles, which are mere names for unknown and unascertained causes of particular effects. The antipathy which some personas have to eels, may be traced to the resemblance which these fishes bear to serpents, and to the dread of these reptiles that has been betimes implanted and cherished. There are other an- tipathies with regard to food or liquor of any particular kind, which have proceeded from a defective and faulty conduct of indulgent and ill-judging parents in early life, or from some natural unfruitfulness of the table or digestive fac-ulty of children. "To what then are those antipathies of which we have heard so much reducible? Either to leg- endary tales, or to aversions against objects which we believe dangerous; or to a childish terror of imaginary perils; or to a diphiloph, of which the cause is disguised; or to a nudi- culous affection of delicacy; or to an infirmity of the sto- mach; in a word, to a real or pretended reluctance for things which are either unwholesome, or supposed to be tainted with qualities hurtful to us. Too much care cannot be taken in preventing or regulating the antipathies of children; in familiarising them with objects of every kind; in discovering to them, without emotion, such as are dangerous; in teaching them the means of defence and security, or the methods of escaping their noxious influence; and when the rational powers are matured by age, in reflecting on the nature of those objects which we fear, in ascertaining what has been told concerning their qualities, or in vigorously operating upon our own dispositions to overcome those vain repugnances which we may feel." Some think that the term antipathy can only be applied to any certain purpose, when used with the restriction of modern philosophers; among whom it signifies no more than a vis contrarig, or repelling power.

Antipathy is sometimes also used in a moral sense, to de- note a contet between the mind and the body, or between reaon and inclination.

Antipathy, in Painting, relates wholly to the colouring- part of that art, and which may be more properly ex- pressed by contrariety, degradation, &c. Blue and crimson are by mixing changed into purple, as blue and yellow are into green, or red and yellow into an orange colour; these mix- tures may be said to be kind to, or to harmonize with each other. If red and green, yellow and purple, or blue and orange colours, be united by admixture, they not only de-
ANT

The term antipathy is commonly used to describe a feeling of dislike or aversion towards someone or something. It is derived from the Greek words ἀντί (anti) meaning 'against' and πάθος (pathos) meaning 'feeling' or 'emotion'. Antipathy can be felt in various contexts, such as personal relationships, cultural differences, or even towards ideas and beliefs.

In the context of the ancient world, the concept of antipathy would have been understood within the framework of classical philosophy and ethics. The ancient Greeks and Romans had a rich vocabulary to describe different forms of attraction and repulsion, which were often influenced by factors such as symbols, colors, and the balance of forces in nature.

For example, the ancient Greeks saw colors as having a symbolic value. Red was associated with love and passion, while white was associated with purity and truth. However, extreme reactions to these colors could lead to feelings of antipathy or antipathy.

The concept of antipathy would have also been applied to the natural world. Ancient philosophers believed that nature was governed by a balance of forces, and that when this balance was disrupted, it could lead to antipathy or antipathy.

In summary, antipathy is a complex concept that has been studied and debated throughout history. Its roots can be found in the philosophical and cultural traditions of ancient Greece and Rome, and it continues to be a relevant topic in modern times.

This is a brief introduction to the concept of antipathy. For a more detailed exploration of this topic, one could consult ancient Greek and Roman texts, as well as modern studies on emotion and philosophy.
ANTIPHON, in Biography, an Athenian orator, was born at Rhamnus in Attica, and hence called the Rhamnusian. He was instructed by his father Sophilus in rhetoric, and was deemed not inferior in eloquence to Themistocles, Aristides, Pausanias, or Gorgias, his immediate predecessors; and he was preceptor in this art to Thucydides, who mentions him as an eminent orator. Quinianus (Instit. i. iii. c. 1.) informs us, that he was the first who wrote precepts on oratory; and Ammianus Marcellinus (xix. xxx. c. 4.) says, that he first introduced the practice of pleading for money. Plutarch, as well as Thucydides, represents him as an energetic and persuasive orator, of fertile invention, and ingenuous in adapting himself to the prejudices and interests of his auditors. Philostatus (de Soph. I. i.) describes him as poising peculiar powers for soothing the minds of his hearers, and alleviating grief. Plato, however (in his Memorabilia) treats his talents with contempt, and makes Socrates employ him in opposition to Alcibiades; but Socrates, it should be remembered, had been infected by the sophists, and particularly by Antiphon. His talents, as it is observed to his dishonour, were employed in establishing the tyranny of the four hundred in Athens; and, as Plutarch says, he was, for this offence, condemned and executed as a traitor, and his body thrown out of the walls of the city, in the first year of the 92d Olympiad, or 412 years before Christ. Others have given a different account of the manner of his death. Sixty orations under his name were formerly extant, but there now remain only 16; of which the subjects are criminal, for murder or manslaughter, or defensive in similar causes. Fabricius and other critics think that they are genuine, though their authenticity has been questioned by others. They have been edited, with the orations of Scechnes, Lytias, &c. by Aldus at Rome, in folio, in 1513; by H. Stephens, in 1577; and in Svo. by Minutius, at Hanau, in 1619. Plutarch. de Vita x. x. 6, auctor, apud Spal. tab. ii. p. 832. Fabr. Bibl. Græc. l. ii. c. 62. § 2. l. i. p. 882.

ANTIPHONALLY, from ant., contra, and σως, voice, in respect of church music, imports as much as alternately, or anthem-wife.

The Greeks have a method of singing antiphonally, antiphonos, called by them ἀντιφωνοσ, wherein two persons singing together, and then are silent, and so on.

ANTIPHONY, antiphonarium, a service book which contained all the invitatories, responsories, collect, and whatever else was said or sung in the choir, except the lessons. This is otherwise called responsum, from the responses therein contained. The author of the Roman antiphonary was Pope Gregory the Great.

This is a book containing, in Gregorian notes, the anthems and hymns of the Romish church. The Abbé Fayet, in correction of Rouillé, says that the book only which contains the anthems is styled the Antiphonarium. When the psalms and hymns are understood to be included, it is called vesperalis; when it contains the chants of the mass, it is termed gradual. The procedural book contains the benediction, chant, and processional chants. The funeral chants occupy the ritual.

We also find mention of nocturnal and diurnal antiphonaries, for the use of the daily and nightly offices; summer and winter antiphonaries: also antiphonaries for country churches, &c. By the provincial constitutions of archbishop Wincelicia, made at Merton, A. D. 1305, it is required that one of these should be found in every church within the province of Canterbury.

The use of these, and many other popish books, was forbidden by the 3d and 4th of Edward VI. c. 10.

ANTIPHONY, antiphona, the answer made by one choir to another, when the psalm or anthem is sung alternately between two.

ANTIPHONY, sometimes denotes a species of psalmody, wherein the congregation, being divided into two parts, repeats the psalms, verse for verse, alternately. In this sense, antiphony stands contradistinguished from symphony, where the whole congregation sings together.

Antiphony differs from responsum, because in the latter the verse is only spoken by one person, whereas in the former, the verses are sung by the two choirs alternately. The original of antiphonal singing in the western churches is referred to the time of St. Ambrose, about the year 374. That father is said to have first introduced it into the church of Milan, in imitation of the custom of the eastern church, where it appears to be of greater antiquity, though as to the time of its institution, authors are not agreed. It was most probably introduced at Antioch.

St. Ignatius, who, according to Socrates (E. H. i. vi. c. 8.), had conversed with the 2600, is generally supposed to have been the first who introduced the primitive christians in the east the method of singing psalms and hymns alternately, or in dialogue: dividing the fingers into two hands or choirs, placed on different sides of the church. Socrates, and several of the fathers, pretended, that it was revealed to St. Ignatius by a vision, in which he had seen choirs of angels praising the Holy Trinity in this manner by singing a ternary hymn. The custom from prevailled in every place where christianity was established. But Theodosius (E. H.) li. c. 24 informs us, that this manner of singing was first practised at Antioch. Suidas, under the word συμφωνία, says, that the choirs of churches were, in the time of Constan
tius, the son of Constantine the Great (who reigned from 337 to 361) and of Flavian, bishop of Antioch, divided into two parts, who sung the Psalms of David alternately; a practice, he adds, that began at Antioch, and was thence dispersed into all parts of the christian world. Indeed, it seems, that many of the primitive christians had not any more sublime conceptions of the celestial employment, or the joys of the blest, than that they were eternally singing. The ancient hymn, "Te Deum laudamus," still retained in the church, appears to have furnished the poet Dante with a model of the 25th canto of his "Paradiso," where, under three different hierarchies, confounding each of three choirs or choruses, the heavenly host of cherubim and seraphim are singing perpetual hallelujahs. Milton has also alligned them the fame employment:

"________ Their golden harps they take;
Harps even tuned, that glittering by their side
Like quivers hung, and with preeminent sweet
Of charming symphony they introduce
Their sacred song, and waken raptures high;
No voice exempt, no voice but well could join
Melodious part, such concord is in heaven."


ANTIPHONY is also used to denote the words given out at the beginning of the psalm, to which both the choirs are to accommodate their singing.
ANTPHONY, in a more modern sense, denotes a kind of composition made of several verses extracted out of different psalms, adapted to express the mystery solemnized on the occasion.

ANTIPHONY ad intravmis, that ancienly sung in the interlude of the mas.

ANTIPHONY invitatoria, that repeated at the psalm Venite exultemus.

ANTIPHONAE majores, those seven used to be sung in the time of Advent, at the Magnificant, and during the seven days before Christmas.

ANTIPHONAE processionales, those sung at processions.

ANTIPHONAE regulatae, those rehearsed at institutions.

ANTIPHRAESIS, derived from ἄντι and ἀφράσια, of ἀφανής, I speak, in Rhetoric, a sort of figurative expression, which has a contrary meaning to what it carries in appearance. Or, a kind of irony, wherein we say one thing, and mean the contrary.

Sanctius defines antiphraes to be a form of irony, whereby we say a thing, by denying what we ought rather to affirm it to be: as when we say, "he did not displease me!" or, "he is no fool!" meaning, "I was pleased with it; or he is a man of sense." On this principle the antiphraes ought to be ranked among the figures of sentences, and not among those of words.

It is a common error, to make antiphraes confound in single words; as when we say, that the Parch are thus called by antiphraes, because they spare nobody, "Parch, qui nemini parcunt." St. Jeron, in his epistle to Riparius against Vigilantius, says, he ought rather to be called "Dormitantius per antiphraes," than Vigilantius, because he opposed the christians holding wakes at the tombs of the martyrs.

Sanctius holds it improper to call these antiphraes; because "phraes is not applicable to a single word, but signifies eruditionem, aut locundi modum.

ANTIPHTHISICA, in the Materia Medica, medicines adapted to reful and cure phthisis or consumption.

ANTIPHISUS, in Entomology, a species of papilio that greatly resembles P. Polydorus, but is still a distinct insect. The wings are tailed, black on both surfaces, with seven lunated red spots on the posterior pair. Fabricius, and Donovan's Insects of India.

ANTIPINO, in Geography, a town of Russia, in the province of Saratov on the Volga, 100 miles south of Saratov.

ANTIPLEURITICA, in the Materia Medica, medicines suited to cure pleurisy.

ANTIPODAGRICA, medicines suited to cure the foot.

ANTIPODES, from ἄντι, antith. and πόδι, podis, a foot, in Geography, a relative term, denoting such inhabitants of the earth as live diametrically opposite to one another.

The Antipodes are those who live in parallels of latitude equally distant from the equator, the one toward the north, the other to the south; and under the same meridian, though 180°, or just half of that meridian, distant from one another.

The Antipodes have nearly the same degree of heat and cold; and the same length of night and day; but contrary times: it being midnight with one, when it is noon with the other; and the longest day when it is the shortest with the other.

Again, as the horizon of any place is 90° distant from its zenith, the Antipodes have the same horizon. And hence, when the sun rises to one he sets to the other.

Plato is said to have first-illustrated the notion of Antipodes and likewise to have given them the name; as he conceived the earth to be of a spherical figure, it was easy for him to infer, that there must be Antipodes.

Many, and particularly Laetanius and Angulatus, ridiculed the notion. These fathers are strangely perplexed to think how men should stand pendulous in the air, with their feet uppermost, as they thought they must do in the other hemisphere.

This perplexity was owing to their not considering, that the lowell point, with regard to the inhabitants of our earth, is the centre; and that the terms up and down are relative and merely signify farther from or nearer to the centre, to which all heavy bodies gravitate. If we traversed the globe, we should, in every part of it, have to fly over our heads, and our feet towards the centre; and we should every where call it up over our heads, and down under our feet; although the same right line which is down to us, if continued through and beyond the opposite side of the earth, would be up to the inhabitants on the opposite side.

Our Antipodes may as well imagine, that we stand with our heads hanging downwards, as we conceive that this is their pendulous position; but if we changed places, we should find that we stood equally upright and firm where we were. Nay, the fact is that we, who are now on what we are ready to call the uppermost side of the earth, and so wonder how another, in the situation of our Antipodes, can stand securely on the undermost side, with his head hanging downwards, shall be carried by the revolution of the earth, in the space of 12 hours, to the situation where our antipodes now are, although we shall be as far from them as before; and when we arrive there, we shall find no difference as to our manner of standing: but we shall then see the opposite half of the heavens, and imagine that they have moved half round the earth.

If we may believe Aventine, Boniface, archbishop of Montz and legat. of pope Zachary, the eighth century, declared a bishop of that time, called Virgilius, heretic, for maintaining that there was such a thing as Antipodes.

But this piece of history is controverted by the authors of the Mem. de Trevoux: as having been made use of, it seems, by some persons, to shew that the church has been mistaken in its decisions.

As to the sentiments of the primitive Christians with regard to the Antipodes, some, rather than admit the conclusions of the philosophers, absolutely denied the whole, even the demonstrations of the geometers relating to the sphericity of the earth; which is Laetanius's way. Inlift. lib. iii. cap. 24. Others only called in question the conjectures of the philosophers; which is St. Augurine's method. De Civ. Dc Civ. Dei, lib. xvi. cap. 9. After putting the question, whether there ever were nations of the cyclopes, or giants, or of people whose feet stood outward, &c. he comes to the point of Antipodes, and asks, "whether the lower part of our earth be inhabited by Antipodes?" He made no doubt of the earth's being round, nor of there being a part diametrically opposite to ours, but only disputes its being really inhabited. And the considerations he suggests for that purpose are just enough, as that they who affected Antipodes had no history for it; that the lower part of the earth may be covered with water; and that to place Antipodes there, of a different origin from us (as must be the opinion of the ancients, since they thought it impossible to go from our world to theirs), is to contradict scripture, which teaches, that the whole race descended from one man. Such are the sentiments of that father. It may be added, that the Christian fathers were not the only persons who disputed the truth of the Antipodes. Epicurus and Lucretius had
had done it before them; at the end of his first book, v. 1663, &c. Secundo Librach, E. De Facie in Oboe Luce; and Pope, who writes the opinion, lib. iii. cap. ii.

ANTIPOLIS, in Ancient Geography, now ANTIBES, a city of Gaul, near the river Varus, in Narbonese Secunda, situated on the Mediterranean; built and colonized, according to Strabo, by the Micans, from whose authority it was withdrawn by a edict of the Roman Senate, in the time of Augustus. Others say, that it was taken by them from the Ligurians of Gallo, called Deciani. It was once very considerable, and had a port, a theatre, and many public monuments. See ANTIS.

ANTIPOLITE, a false or pretended pope; or one that is, or is pretended to be, irregularly elected in opposition to another.

Cardis gives the history of no less than twenty-four schisms in the Roman church, caused by antipopes; some took their rise from a diversity of doctrine or belief, which led different parties to elect each their several pope; but the greater part from dubious controverted rights of election, the fruits of chicane and ambition.

ANTIPORTICO is used for one a vestibule, or porch, at the entrance of an edifice.

ANTIPRAXIA, from ant and πράξα, I perform, in the Ancient Physic, denotes a contrariety of functions, temperaments, &c. in different parts of the body; invented to account for that contrariety of symptoms which frequently concur in hypochromia cæsæ, when, e. gr. the liver is charged with being immoderately hot, and the stomach excessively cold.

The moderns, particularly Ettmuller, refute the notion of an antipraxis, on this principle, that the blood circulating duly through the whole body, warms all the parts, as well the stomach as liver proportionally. To which some advocates for the ancient sytem objects, that this is confounding the preternatural state with the natural.

ANTIPREDICAMENTS, in Logic; see Antepredicament.

ANTIPROBABILISM, the doctrine or fystem of those who hold it unlawful to follow the least probable opinion in opposition to the more probable one.

There have been vigorous advocates for antiprobabilism; for even among its greatest enemies, the Jesuits, P. Gilbert has a treatise in favour of antiprobabilism, viz. "Antiprobabilismus, seu tractatus theologicoeedem totius probabilismi flaterram continent," &c. Par. 1701, &c.

ANTIPROBOL, in Rhetoric, a figure whereby the defendant admits or admits the charge brought against him by the prosecutor.

E. gr. supposing the prosecutor's argument to be, "Titus has killed Caisus;" the defendant's antipsebe may be, "I have killed him, but undesignedly." See Antipropemptic. In Pater, a poem wherein a peron going a journey addresses himself to his friends. Such is that of Ovid, lib. i. Trist.

"Cum sibi illius tribuiffe ac sitis image," &c.

It is opposed to P ropemptic.

ANTIPROTASIS, in Rhetoric, a solution of the pro-tasis.

ANTIPSYRA, in Geography, a small island in the Grecian Archipelago, two miles from the island of Ipsira.

ANTIPSYRA, from ant and σύρα, fish, in Pharmacy, remedies prop. against the itch.

ANTIPSYRITIS, a figure in Grammar, whereby one case is put for another.

The word comes from ant, pro, and σύρα, fish.
ANT

Foundations of this kind have often been wished for, and sometimes also attempted, in England.

Sir H. Spelman speaks of a society of Antiquaries in his time, to whom his treatise of the terms, written in the year 1714, was communicated, he himself being one of the number.

The society was founded in 1732, by archbishop Parker, Camden, Sir Robert Cotton, Stowe, and others. Application was made, in 1589, to queen Elizabeth for a charter, and a house wherein they might hold their meetings, erect a library, and the like. But by the death of that prince, their application proved abortive. Her successor, king James I, was far from favouring their design.

In the year 1717, this society was revived again, since which time no interruptions having happened, it is at present in a very flourishing condition; consisting of many learned and ingenious men, of the nobility, gentry, clergy, &c. whose business, as members, is to discover the antiquities of their own, as well as those of other nations.

This society was incorporated by the king's charter, in the year 1751, by the name of the President, Council, and Fellows of the Society of Antiquaries of London; their council consists of twenty-one persons, ten of whom are annually elected: the election of members is by ballot, a certificate signed by three or more fellows being previously exhibited for fix ordinary successive meetings, except in the case of peers, members of the privy council, and judges, who may be proposed by a single member, and balloted for the same day; and the choice is determined by a majority of two-thirds. Every member pays an admission-fee of five guineas, and two guineas a year, or an additional sum of twenty-one guineas. They have weekly meetings on Thursday, from seven o'clock in the evening till nine. This society began to publish its discoveries, &c. in 1770, under the title of "Antiquarian.

A similar association was founded in Edinburgh, in 1783, and received the royal charter in 1793. See Society.

Antiquary is also used, by Ancient Writers, for the keeper of the antiquarium, or cabinet of antiquities.

This officer is otherwise called archæus, or antiquary, of a king, a prince, a flate, or the like.

Henry VIII. gave John Leland the title of his antiquary, a title which, says the author of his life, no body ever enjoyed besides himself. But the restriction, we suppose, was only intended to be understood in respect of the kings of England. M. Schott, we find, had the title of antiquary to the king of Prussia; P. Pedruzzi, that of antiquary to the duke of Parma; M. Gallant, held some time in Turkey, under the title of antiquary of the king of France. The university of Oxford have still their antiquary, under the denomination of cypher archivorum. The kings of Sweden have been at great expences in order to illustrate the antiquity of their country, having established an academy of antiquaries with this single view.

The office of the ancient Irish antiquaries was to preserve the genealogies of the kings of Ireland, to correct the regal tables of succession, and deliver down the pedigree of every collateral branch of the royal family.

P. Lübce and Petavius have published pieces expressly concerning the apparatus of antiquaries.

ANTICATA, in Conchology, a species of arca, that inhabits the Mediterranean, Indian, and American seas. The shell is obliquely heart-shaped, with many unarrow grooves Linnaeus, Gmelin, &c. This kind is rather large, white, and covered with a hairy epidermis; a compressed prominent angle in the anterior sipe.

ANTIQUE, a species of chama, found in the Atlantic.
that over his finished picture he spread a transparent liquid like ink, of which the effect was to give brilliancy, and at the same time to lower the too great glare of the colour: 'Quod absoluta opera igne illuminata in suis, ut si id ipsum percurritis claritatis colorum excensis.'—Et tu vatia magno né colorum claritas oculorum aciorem offendidur. This palliative, though it may possibly perplex the critics, is a true and artful like description of the effect of glazing or feigning, such as was practised by Titian and the rest of the Venetian painters: this custom, or mode of operation, implies at least a taint of what the excellence of colouring confisits, which does not proceed from fine colours, but true colours; from breaking down those fine colours which would appear too raw, to a deep-toned brightness. Perhaps the manner in which Correggio practised the art of glazing was still more like that of Apelles, which was only perceptible to those who looked close to the picture, ad manum intuiti demum apparet; whereas in Titian, and still more in Baffano and others his imitators, it was apparent on the first glance: artists, who may not approve of glazing, must allow, that this practice is not that of ignorance. Another circumstance which tends to prejudice me in favour of their colouring, is the account we have of some of their principal painters using but four colours only. I am convinced the fewer, the cleaner the will be the effect of those colours, and that four are sufficient to make every combination required; two colours mixed together will not preserve the brightness of either of them single, nor will three be as bright at two: of this observation, simple as it is, an artist, who wishes to colour bright, will know the value. In regard to their power of giving peculiar expression, no correct judgment can be formed; but we cannot well suppose that men, who were capable of giving that general grandeur of character which so eminently distinguishes their works in sculpture, were incapable of expressing peculiar passions. As to the enthusiastic commendations bestowed upon them by contemporaries, I consider them as of no weight. The well words are always employed to praise the bell works: admiration often proceeds from ignorance of higher excellence. What they appear to have most failed in is composition: both in regard to the grouping of their figures, and the art of disposing of the light and shadow in masses. It is apparent this, which makes so considerable a part of modern art, was to them totally unknown.

"If the great painters had possessed this excellence, some portion of it would have infallibly been diffused, and have been discoverable in the works of the inferior ranks of artists, such as those whose works have come down to us, and which may be considered as on the same rank with the paintings that ornament our public gardens. Supposing our modern pictures of this rank only were preferred for the inspection of connoisseurs two hundred years hence, the general principles of composition would be still discoverable in these pictures; however feebly executed, there would be seen an attempt to an union of the figure with its ground, some idea of disposing both the figures and the lights in groups. Now, as nothing of this appears in what we have of ancient painting, we may conclude that this part of the art was totally neglected, or more probably unknown."

"They might, however, have produced finge figures, which approached perfection both in drawing and colouring; they might excel in fobo (in the language of musicians), though they were probably incapable of composing a full piece for a concert of different instruments."—Reynolds's Notes upon Trench, note 27, verse 250.

Antique, in Sculpture, a statue, busto, basso-relievo, or other work, the production of ages prior to the fall of the Roman empire; a term chiefly applied by sculptors to the works of the ancient Greeks and Romans.

The statues of the ancients were very numerous, chiefly arising from their custom of defacing and erecting statues in honour of almost all the heroes and celebrated characters among them. But the Romans seem to have surpassed the Greeks in the number of their Gods. "There was no place in Rome," Livy observes, "which was not full of gods and fachifices;" and for this reason, Quintilla says, "our country is so full of deities, who honour it with their presence, that it is more easy to find a god than a man."

Antique sculpture is universally supposed to be far superior to the productions of modern times: it is certain, that the best antiques greatly surpass modern sculpture in general; but it is equally true, that the bell modern works exceed by far the majority of the ancient. And here it may not be improper to remark, that the different casts in plaster, and specimens in marble which are brought to England from abroad, are carefully selected from the casts of productions; and therefore an Englishman is not usefully aware of the deficiencies that are attached to the bulk of the works which remain abroad.

One considerable advantage which antiques possess above modern productions is, that they are in general works of much longer time. It was in many instances among the ancients considered sufficient for one sculptor to have executed four or five statues in the course of his life; hence we find, that the most celebrated marbles of antiquity are finished to a degree that will bear the closest inspection, and will appear equally complete in all the different lights in which they may chance to be placed. Another advantage of the antique above the modern is, that they are the works of artists, who were continually in the habit of viewing nature half or quite naked, owing to the scanty clothing of the lower orders of people in the climates of Greece and Italy: the artists were able to study these fine examples of nature while in action, as running, wrestling, boxing, and playing at the several athletic games and exercises of those times; and especially in the gymnasia or public places, where the youths performed their various feats quite naked. Here all the different motions and beautiful play of the muscles, together with an amazing variety of postures and attitudes, were exhibited to the attentive observer; and with a dignity, truth, grace, and expression, that can never be imitated by those meritorious models, that felt their ignoble nakedness to the artists in our modern academies. The clothing of those days, being light and scanty, did not confine and disfigure the body, as unfortunately is the case in modern times. They had also, it report be true, peculiar advantages in the statues of some of their goddesses; as it has been asserted, that even the modest women of those days considered themselves honoured by being allowed to sit as models for a goddes: and that in consequence of this, noblemen of the first distinction would bring their daughters to the artist for that purpose; report has also gone so far as to state, that not less than four hundred young women of the first rank and greatest beauty flocked to the sculptor who executed the Venus de Medicis.

In many inances, the ancients seem to have bestowed as much labour on the subordinate parts of their statues as on the principal; hence we very often find the fingers, toes, nails, ears, and hair as highly finished as the face or body; whereas, modern sculptors in general are apt to bellow their labour upon the more important parts, to the neglect of the inferior. But in many other inances the ancients neglected, to a very inexecusable degree, what they conceived to be of subordinate consideration: the following remark in one of the lectures of Sir Joshua Reynolds, is a sufficient evidence of
of this fact. "The ancient sculptor," says he, "neglected to animate the features, even with the general expression of the passions. Of this, the group of the boxers is a remarkable instance; they are engaged in the most animated action with the greatest ferocity of countenance—this frequent deficiency in ancient sculpture could proceed from nothing but a habit of inattention to what was considered as comparatively immaterial."

But it is nevertheless proper to remark here, that the ancients in their busts, where the face became the principal object of attention, excelled to a great degree; and undoubtedly surpassed modern sculptors far: their treatment of the human countenance, displayed in the beauty and dignity of some of their heads and busts, is beyond description; they were acquainted to the smallest nicety with the effect of every expression, and were perfect masters of the art of bringing each into full effect.

Simplicity is a great characteristic of antique sculpture in general: this principle is attached not only to the attitudes of their figures, but to the disposition of the drapery, the hair, and every other attribute: fearse an infall of the entré or extravagant is to be found among the finer antiques. But this principle, however beautiful, was often carried too far: and in many instances rendered their works stiff and unintelligible, which may certainly be considered the chief defect of antique sculpture. The ancients, in order to preserve dignity and majesty in the statues of their gods, heroes, emperors, philosophers, and other great characters, often placed the head and body of the statue in an upright position, which in very many instances bordered upon stiffness; and by purposely avoiding every trifling turn or angle in the drapery that might tend to destroy its simplicity, they were sometimes drawn into the opposite error: we therefore find in many instances, though each may be beautiful in itself, that their drapery is composed of a continued repetition of long and straight lines.

There is a subordinate mistake attached to many of the bell as well as to the inferior antique statues; where, in order to strengthen them, the stump of a tree, or a piece of rock is introduced, as incorporated with the flesh of the limb againhil which it is placed; whereas, it is evident that some drapery or other disguise should be thrown over the support, to conceal an effect to awkward and unnatural.

There was also a great degree of falsity taken among the ancients, manifested in their custom of introducing metallic eyes, and working the heads, hands, and feet of some of their statues in marble of a different colour from the other parts of the figure; but this mistake does not belong to their principal and most celebrated works.

For some account of the chief antique statues, see the following articles:

Ceres. Laocoön. Torso.
Cupid. Mars.
Difcobolus. Marlia.

See also Sculpture and Statue.

ANTICUENSIS, or ANTIGUENSIS, in Entomology, a species of Aphis that inhabits the islands of Antigua. It is hairy and black; thorax and anterior part of the abdomen yellow. Fabricius and Gmelin.

ANTICUENSIS, rather ANTIGUENSIS, is also a species of Mutilla that inhabits Antigua, and is described by Fabricius and Gmelin. It is red, abdomen black at tip, and streaked with white.

ANTQUITY, ANTIQUITY, is used to denote the times or ages past long ago.

Thus we say, the heroes of antiquity, the marks or foot-steps of antiquity, monuments of antiquity, &c.

ANTIQUITY is also used to denote the works or remains of ancient times. See Monument, Remains, Ruins, &c.

Thus we say, a fine curios piece of antiquity; Italy, France, and England, abound in antiquities.

ANTIQUITY is also used to denote the great age of a thing, or its duration from times of old.

In this sense we say, the antiquity of a kingdom, a custom, or the like; most nations lay claim to an antiquity much greater than they can truly warrant. The present age may be said to be the antiquity of the world; which was but new in what are commonly called the ancient times, according to the received chronology.

There are great disputations concerning the antiquity, or age of the world.

Ariftingale carried it even to eternity; Parmenides, Pythagoras, and the Chaldeans, were of the same opinion: but the generality of philosophers, as well as divines and historians, have always held an origin of it; though where to fix that origin is the difficulty. The different systens of the chronology of the Greeks, the Egyptians, the Jews, the Hebrew Text, and the Septuagint version of Scaliger, of Dr Isaac Newton, &c. to say nothing of the Chinese annals, leave the point infinitely embarrased.

Dom. Pezon thinks he has merited well of the public by adding 2000 years to the age of the world, which had been taken from it by Scaliger and others; but this did not hinder P. Martinay from entering a prosecution against him in the archbishop's court of Paris for hereby. His crime was following the Hebraen rather than the Hebrew chronology, in which however he was preceded by the generality of the fathers and primitive writers of the church; among whom it appears to have been a common practice, to make 5000 years between the creation and the incarnation. In reality, the Jews are charged with having corrupted their chronology; by which the moderns have been misled.

Some have proposed to trace out the antiquity of the earth, by an observation of the thickness of the Ice; others by observing the elevation of the bottom of the Sea, or the growth of its frusta. One mark or proof of antiquity has been started by Rudbeck, which he pretends to have carried to a demonstration; it is taken from the thickness of a certain black crust, called in the Swedish tongue, mat-iordan, or cast-iron, which covers the surface of the earth, being formed of a mixture of rotten gravel and other herbs, with dust and a kind of mud, which the melted snow leaves behind it. According to this antiquity, there are at least 5000 years requisite to form an inch thick of this crust, which in many places of Sweden is found to be upwards of seven inches thick, where horns have been dug up full of bones and ashes. From whence it follows, according to this author, that it is upwards of 3500 years since burning the dead was practised in Scandinavia.

Recupero, the historiographer of Ætna, suggests an argument in favour of the antiquity of the earth from the several frusta of lava that have issued at different times from this mountain. A stream of lava, which Diodorus Siculus relates to have burst out in the time of the second Punic war,
ANT

is covered at this day only with a very scanty foil; and in digging pits and wells, several strata of lava have been discovered with earth to a considerable thickness over the surface of each stratum; in one instance, seven distinct faces of this kind were pierced; and allowing 2000 years for the interval between two eruptions, the lava that composed the first or lowest stratum, must have flowed from the mountain above 14,000 years ago. Brydon's Tour, &c. vol. i. p. 131.

But this argument is very fallacious, because we learn from Sir William Hamilton's remarks on the island of Naples, that since the first eruption of Vesuvius, which destroyed the ancient town of Herculanenum in the year 79, there have been six eruptions of lava, forming as many different strata, with veins of good foil between them. Phil. Trans. vol. lx. No. 1. See Addenda.

There is scarce a nation under heaven but lays claim to a greater degree of antiquity than the rest of its neighbours; the Scythians, the Phrygians, the Chaldeans, Egyptians, Greeks, Chinese, &c. pretend each to have the honour of being first inhabitants of the earth; several of these nations, left they should be outstripped in their pretensions by any of the rest, have traced up their origin to ages long before the received account of the creation. Hence the appellations aborigines, indigenes, terrigenes, autelulneres, &c. The Athenians were not allowed to pretend to be autarchiotes; and what is most remarkable, Socrates himself gives them this ridiculous appellation, which, as some others of the philosophers have wisely observed, only put them on a level with ants and grashoppers. Mem. Acad. Infer. tom. vii. p. 429.

The Chaldeans pretend to astronomical observations of 47,000, or 47,000 years; they mention the precise king who reigned over them at the time of the deluge, whose name was Xilithus, and attribute to him several things which we ascribe to Noah.

The Chaldaic antiquities of Herofus are lost, except a few fragments which have been collected by Jof. Scaliger, and since more fully by Fabricius. Ammius of Viterbo, a Dominican monk, towards the close of the fifteenth century, would not suffer us to want such a treasure, but officiously went to work, and forged a Herofus out of his own brain, which he published at Rome in 1448. The monk went farther; and from the same mint soon after produced Manetho's supplement to Herofus, from the time of Aegyptus king of Egypt, to the origin of the Roman state. The milhiedis, Manetho lived before Herofus; this anachronism alone had sufficed to betray the cheat.

St. Augustine baushe at the folly of the Egyptians, who pretend to observations of the stars above 100,000 years old: in effect, no people appear to have been warmer in the contetl for antiquity than those of Egypt. They pretend two periods of time; one shorter, during which the throne of Egypt had been filled by men; the other almost indefinite, wherein gods and demi-gods had worn the crown. From Isis and Osiris to Alexander they reckoned a space of 27,000 years, the time before that, while the gods reigned, made 43,954 years more; the whole duration from the beginning of their monarchy amounting to 65,954. De Civ. Dixi, lib. xviii. c. 45.

The computation of their dynasties, as given by Manetho, a writer of their own (of whom we have extracts in Synel- lus, taken from Julius Africanus and Eusobius), extends to 55,50 years before Alexander's time; and the Egyptian chronicle, cited by the same Synellus, goes farther, reckoning 36,525 years. Diogenes Laertius makes no less than 48,993 years from the reign of Vulcan. Yet the Scythians, the Phrygians, the Ethiopians, and some others, still insist on their priority to the Egyptians; and in the judgment of many seem to have carried their point. Julius, after Trogus, gives the precedence to the Scythians; and affirms, that they were always allowed to have been before the Egyptians.

It is no wonder that their catalogues should be ridiculously incredible, when the Egyptians made their first kings reign 1200 years a piece; and the Assyrians 4000.

But the Chineses, the most ancient monarchy in the universe, have cultivated the sciences from the earliest ages, and published at least those 4000 years with the same laws, manners, and usages.

Some indeed have called in question the truth and authenticity of the Chineses annals; yet we find them confirmed, at least as high as 662 years before Chrilt, by the annals of Japan. At worst, the Chineses antiquities stand on as good a footing as those of either Greece or Rome. Their annals, both for order and chronology, are not inferior to any of those ancient for much admired among us; but far surpass them in point of antiquity, and have a better title to be credited, as having written by public authority, which can be said of few Greek or Roman pieces, except perhaps the Capitoline Marbles, which are not properly a history.

We have no inconceivable confirmation of the truth of the Chinese account, from an ancient observation of a grand conjunction of the planets under Chuen-Hio, emperor of China, related by Mattius. That prince lived 2513 years before Chrilt. M. Kerschius has defended the observation against Callinius, and thrown a conjunction must really have happened at the time mentioned by the Chinese annals.

But the authenticity of this observation, and the whole of the Chinese chronology, has been attacked by an ingenious author, Mr. Coltar.

Dionysius Halicarnassius has traced the Roman antiquities, Josephus the Jewish antiquities, Berosus the Chaldaic antiquities, Sanchoniathon the Phcenician antiquities, Manetho and Mariham the Egyptian antiquities.

The Phcenician antiquities of Sanchoniathon are preferred in part by Eusebius. We have an English translation of Sanchoniathon, with notes, by bishop Cumberland, and a continuation from the canon of Eratosthenes. Lond. 1720, 8vo.

Dionysius gave his book the title of Roman Antiquities, on account of the curious inquiries he had made concerning the origin of the Romans, by tracing them back to the remotest ages. For fidelity as well as instruction he is generally preferred to Livy; his accounts are more ample, and his facts defended with more particularity; he gives a full idea of the Roman ceremonies, the worship of their gods, sacrifices, manners, customs, discipline, policy, arts, laws, &c.

To the clasfs of supposititious antiquities belong the Hetrurian antiquities, pretended to have been found by Scornaelli near Volaterra; and published in 1656, by Curtius Ignir- ramus, who is generally supposed to have been the forger of them. A great number of fictitious names of ancient authors are cited in this book to give the better face to the cheat; but the style betrayed it. Allutius and Ern- Flus early detected the imposture. Fabr. Bibl. Lat. lib. iv. cap. 15.

The British antiquities, before Caesar's invasion, are utterly dubious, not to say fabulous. Old chronicles speak of Samo- thes, the son of Japhet, as the founder of the British monarchy; Albion, a descendant of Cham, invaded it three hundred years after; and about 6000 years after this, Brutus, grandson
grandson of Aeneas, came and took posseffion of the island in
the year of the world 2880, giving it the name which it still
retained when Cesar made his attempt. This is Geoffrey of
Monmouth's fytem of the antiquities of the British nation,
which the generality of our historians admit, for want of a
better. It has been defended by A. Thomson of Queen's
College, in the preface to his English translation of that
writer.

It must not be forgot that the Irish also pretend to be the
most ancient of all nations; they trace their origin without
interruption up to Japhet. But the Scots still dispute their
priority with them, holding themselves to be an elder branch
of the Scythinns, the first of men.

The antiquity of religion has been often urged as a proof of
the truth of it. Jews, Gentiles, Chriftians, Protestants,
Papists, have all in their turns made use of the argument
from antiquity. It is indeed of the artificial kind; and
comes rather under the denomination of a presumption than
a proof: on the whole, it seems to have served the caufe of
error as much, if not more, than that of truth.

Antiquity is more peculiarly used to denote the cere-
monies, customs, and ufages, which obtained in ancient
times, either with regard to perfons, places, or things.

Antiquities, in this fente, are usually divided into fecred,
political, military, literary, and domestic; sometimes only
into civil and ecclefiafal.

Antiquities, fecred, thofe relating to the religious
worship, discipline, and belief of ancient times and people.
These may be subdivided into Heathen, Chriftian, and Ma-
hometan, &c.

Reland has a treatife expressly on the fecred antiquities of
the Jews: Struvius on thofe of the Romans; Lickemacher
on thofe of the Greek; and Stillingsfleet on thofe of the
British churches.

Fabricius has given two plans of a thesaurus or body of
antiquities; the one of Hebrew antiquities, after the manner
of Graevius and Gronovius: the other of ecclefiafal anti-
quities, divided into twelve books. He gives the names and
titles of 150 authors to be included in the first, and 101 au-
thors for the second.

Antiquities, Chriftian, thofe which relate to the an-
cient flate of the Chriftian church.

These are the fame with what we otherwise call ecclefia-
fical antiquities.

The Magdgborg centuries are looked upon by perfons as
a librarv of Chriftian antiquities.

Mr. Bingham has published a learned fytem of Chriftian
antiquities.

As a principal branch of Chriftian antiquities, we may
reckon,

Antiquities, Biblical, the notices of ancient laws, ce-
monies, events, &c. occurring in the Scriptures.

These make a branch of ecclefiafal antiquities, and bear
a near relation to the Jewish, &c. antiquities.

Some pretend to deduce moit of the heathen antiquities from
the Bible; others, as Spencer, &c. take the contrary
course, and deduce the antiquities of the Bible from those of
heathenifm.

To interpret Scripture, it is absolutely necessary regard be
had to the heathen antiquities alluded to in them, and thofe
not only fuch as are directly aimed at or approved, but also
fuch as are purposely opposed.

Dr. Cave has published a treatife of apoftolical anti-
of the Apoftles, Evangelifts, &c. Lond. 1674, fol. 1684,
and 1686.
of Europe, and is admitted as a British herb. There are three supposed varieties of it figured by Seba, Martin, and Loddiges, and the nuculus eurynus of Pennant has been confounded as an accidental growth of the same species; but the last is certainly distinct. Vide Don. Brit. shed. p. 110.

The thistle is from four to six inches in length, of a yellowish colour, finely cancellated with transverse thrie and longitudinal plait; it has two or more angular ridges along the whorls, which are tuberculated.

ANTI-RATIONALISTS, a name sometimes given to divines, who in matters of religion are for humble reason, and making it bend to faith, alleging that the absurdity of a thing is no reason for rejecting it.

In this sense, the rigid Calvinists and adherents to the fy-thod of Dort have been denominated anti-rationalists, on account of the doctrine of absolute predetermination, &c. The Roman Catholics are also entitled to the same appellation, on account of the doctrine of transubstantiation. M. Bayle took shelter in the system of the anti-rationalists, the better to combat the Christian doctrines of the origin of evil, providence, &c. But this, like other offensive appellations, has been very indifferently applied; it has been uncandidly used as a term of reproach; and reason, the first endowment conferred on mankind by their Creator, though unduly depreciated by some, has been extravagantly extolled by others, who have been enabled to extend and improve the exercise of it, especially in the province of religion, by the extraordinary communications of a divine revelation.

ANTI-RHODUS, in Ancient Geography, a small island situated within the port of Alexandria, in Egypt, whither Antony retired in despair, after the battle of Actium. After the example of Timon the misanthrope, he withdrew into intercourse with mankind, and called this recluse habitation Timotheum.

ANTIRRHEA, in Botany. See Cunninghania.

ANTIRRHEIUM, from ari and rham, I speak, in Literary History, denotes a refutation of some book, author, or opinion. In this sense we also meet with the word antirrhis.

ANTIRRHENUM, in Botany, ari, equalis, and fi, una. Quod fructu fit unui narium himile; hence it has been called calves-smout; chas didymaia angijoflora. Linn. Gen. 735. Garrn. 53. Juff. 120. Snap-dragon, or toad flax; natural order, perifomae.

Generic Character. Calyx perianth five parted, permanent; divisions oblong, the two lower more gaping than the others; corolla monopetalous, ringent; tube oblong, gibbous; limb bilabiata; upper lip bind, reflex on the sides; lower limb trifid, obtuse; palate convex, usually closed by a prominence between the lips, arising from the under lip; nectary at the base of the corolla produced downwards, prominent; filaments four, two of which are shorter; anther converging; phyllium, germin roundish; style simple, of the length, and in the situation of the filaments; stigma obtuse; pericarpium, capule roundish, two-celled; seeds numerous.

Essential gen. Character. Calyx five-leaved, corolla with the base produced downwards and eccentric; stamens two-celled.

Fifty-two species of this plant are described, only eight of which, according to Dr. Smith, are the spontaneous growth of this country.

Species. 1. A leaves angular. 1. A. symbolorum, ivy-leaved toad-flax; leaves heart-shaped, five-lobed, alternate; flaxks proeminent; the root is perennial, from which fleshy long, decumbent, spreading flaxks, bearing violet-coloured small flowers, with a yellow palate: it is a native of Britain, growing on crevices of rocks and old walls; hence this plant is well adapted for the ornament of rock work; it flowers from June till October. Figured in Curt. Flor. Lond. fasc. ii. 47. Eng. Bot. 521.

2. A. polyanthum, hairy-leaved toad-flax, leaves hairy, flat, very hairy, alternate; flaxks proeminent; the edge of the leaves divided into one or ten obtuse cumulate lobes; a native of the Mediterranean region. J. Bot. 431. 3. A. ombrosa, hairy, pointed toad-flax, or flaxk, leaves oblong alternate; flaxks proeminent; calyx and leaves hairy; corolla upper lip purple underneath: a British annual, growing in fields, and flowering from July till October. Curt. Flor. Lond. fac. i. 46. Eng. Bot. 692. 4. A. floribundum, round-leaved toad-flax, or flaxk, leaves ovate alternate; flaxks proeminent; this plant is hairy; the upper lip of the corolla is yellow, the under purple: it is an annual British plant, growing among corn, and flowering from July till September. Curt. Flor. Lond. fac. iii. 37. Eng. Bot. 665. 5. A. caesalpinium, tendrilled toad-flax, leaves oblong alternate; flaxks spreading; petioles tendril-like; flaxks filiform, very branching; pudesces axillary, one-flowered; corolla bluish, with a white palate fpitted with purple; annual: a native of Egypt; introduced in 1775, by Dr. Joseph. Nich. de Jacquin. Jac. Hort. t. 82. 6. A. corymbosum, Egyptian toad-flax, leaves oblong alternate; flaxk erect, and much branched; this very much resembles the third species; it is an annual plant, a native of Egypt.

**Leaves opposite. 7. A. triphyllum, three-leaved toad-flax, leaves ternate, ovate; an annual plant, rising with an upright branching flaxk, more than a foot high; leaves oval, in threes, sometimes in pairs, flowers yellow, with fawon-coloured lips: a native of Sicily; a variety of this has a purple standard and spur; this species has been cultivated here since 1940. 8. A. trinerviflorum, leaves in fours, lanceolate; flaxk erect, branching; flowers pedunculed; it grows more than five feet high, bearing large purple flowers: a native of Portugal and America.

9. A. purpureum, purple toad-flax, leaves quaternate, linear; flaxk erect, flower-bearing, spiket; a perennial plant, rising two feet high; it is a native of Italy; and cultivated in the Oxford garden, in 1648. Curtis Magaz. 99. 10. A. vespertine, leaves linear-lanceolate; the lower ones ternate; flaxk erect, spikes; it resembles the A. linearis, or common toad-flax, except that the upper lip is white, and the flowers racemose; a native of the south of Europe, and introduced, in 1775, by Mont. Thomin. Jac. l.c. rar. 10. 11. A. repens, leaves linear, glaucescent, villiferous, or scattered; flaxk panicle; calyx smooth, of the length of the spur; corolla of an ash-coloured white; under lip streaked with purple: a perennial British plant, flowering from July till September. 12. A. monspellicum: this, according to Dr. Smith, is the same plant as the repens. 13. A. fruticosum, branching toad-flax, leaves falcate, channelled, fleshy, the lower ternate; flaxk panicled; corolla very smooth; flaxk about a foot high, smooth, erect, stiff; flowers racemose, yellow, with a tinge of red at the palate; a native of Spain, and introduced in 1775, by Mr. Richard. Curt. Bot. Mag. 200. 14. A. bipinnatum, dotted toad-flax, leaves linear, smooth, the lower quaternate; flaxk erect, panicled; flowers spikes-headed; an annual from four to eighteen inches high, bearing yellowish flowers, spotted with brown on the lower lip: a native of France and Spain; introduced by M. Thomin in 1777. 15. A. triste, dark-flowered toad-flax, leaves linear, scattered, the lower opposite; nectary falcate; flowers subfusce; flaxk eight inches long, decumbent; flowers of a dark purple. Curtis Magaz. 74: a native of Spain; introduced in 1777, from Gibraltar, by Sir Charles Wager.

16. A.
16. *A. fujinum*, procumbent toad-flax, leaves sub-quaternion, linear; leaf-diffused; flowers racemose; spur straight: a native of France and Spain; cultivated by Miller, in 1728. 17. *A. arvensis*, yellow corn toad-flax, leaves sub-linear, lower quaternate; calyx hairy, viscid; flowers spike; stem erect, a spain high; the colour of its flowers varies blue and yellow; according to Hudson, it is a native of Britain. 18. *A. pellestrinum*, violet-coloured toad-flax, stem-leaves linear, alternate; root leaves lanceolate, ternate; flowers corymbed; an annual, eight inches high, with purple flowers; a native of France and Italy. 19. *A. faxattile*, rock toad-flax; leaves lanceolate-linear, scattered villose; the inferior quaternate; stem decumbent; flowers spike; a perennial, with yellow flowers, having two orange spots on the palate; a native of Spain. 20. *A. virgineum*, chammy snap-dragon, root leaves quaternate, lanceolate; stem-leaves linear, alternate; calyx villous; about eight inches high; a native of Spain; introduced by M. Thouin, in 1785. 21. *A. multiflorum*, many-flaked toad-flax; leaves linear, piliferous; flowers headed; an annual plant, about a foot high; with several flowers, bearing either deep yellow, or sulphur-coloured flowers; a native of the south of Europe; and cultivated by Miller, in 1727. 22. *A. glocum*, leaves quaternate, fabulata, piliferous; stem erect; flowers spike; a small annual, with yellow flowers; spur pale, or striped with blue; a native of the south of Europe. 23. *A. apiaceum*, alpine toad-flax, leaves quaternate, linear-lanceolate, sea-green; stem diffuse; flowers racemose, four bract; perennial; it has a stem about five inches high; flowers of a violet-purple colour, and of a deep yellow in the middle. Curtis Mag. 207. A native of the Alps. 24. *A. bicurum*, horned toad-flax, leaves opposite, ovate-oblong, serrate; stem erect; flowers spike; capsules two-horned; it grows a foot and a half high, bearing blue flowers, with a yellow mouth; a native of the Cape; and introduced by Mr. F. Maillon, in 1774. annual. 25. *A. villifolium*, leaves all opposite, ovate, villose; stem simple; flowers opposite, lateral; a perennial with yellow flowers; introduced by Sir Francis Drake, in 1785; a native of Spain. 26. *A. origineum*, leaves mossy opposite, oblong; flowers alternate; an annual, polymorphous plant, varying with lanceolate leaves. It grows wild on the Pyrenees; it was introduced by Lee and Kennedy, Hemmerith, 27. *A. pinatllum*, leaves opposite, pinnated; stem erect; flowers racemose; found at the Cape, by Thumberg. ***Leaves alternate. 28. *A. minus*, leaf toad-flax; leaves mossy alternate, lanceolate, obtuse; stem very much branched, spreading; calyx longer than the spur; stem erect, branched, villose, villose; flowers small, violet coloured, with the under-lip white, and palate yellow, growing on assyria peduncles; it is a British perennial plant; found in corn fields and sandy pastures. Curtis. Lond. 541. 29. A. dalmaticum, leaves alternate, heart-shaped; stem clapping; stem woody, three feet high; flowers large, yellow, axillary; a native of Crete. 30. *A. hirtum*, leaves lanceolate, hairy; flowers spike; the upper leaf of the calyx large; an annual, rising with a single flax a foot and a half high; flowers of a pale yellow colour, with dark stripes, and deep yellow lips. Miller received the seeds of this species from Madrid. Jac. ic. rar. t. 117. 31. *A. gynelyctosum*, broun-leaved toad-flax, leaves lanceolate acuminate; panicle flender, flexuose; stem erect, much branched, three feet in height; flowers of a bright yellow colour, in loose spikes, and resemble those of the Linaria (32); perennial or biennial: a native of Siberia, Austria, Switzerland, &c.; cultivated by Dr. Sherard, in 1732. Jacq. Flor. Auct. t. i. f. 242. 32. *A. juncum*, rush-like toad-flax, leaves linear, alternate; stem panicled, flender; flowers racemose; upper-lip of the flowers white, with blue stripes; lower a pale yellow; found in Spain; introduced by M. Thouin, in 1728. 33. *A. linearium*, common yellow toad-flax, leaves lanceolate-linear, crowded; stem erect, spike; calyx smooth, shorter than the spur; it is a common well-known plant, which, from the colour of its flowers, is vulgarly called butter and eggs. Woodly. Med. Bot. suppl. 221. Eng. Bot. 638. 34. *A. isnifolium*, leaves lanceolate, three-nerved; flowers racemose; peduncles distinct; shorter than the bracteae; flowers yellow; spur the length of the flower; it grows wild on the sea-coasts of Italy; perennial. 35. *A. chalcedonicum*, white-flowered toad-flax, leaves linear-lanceolate, alternate; flowers in racemes; calyx longer than the corolla; stem erect; an annual plant, growing two feet high; the flowers are small, white, with long spurs, produced singly, almost extending over the whole branches; a native of Italy; and cultivated in the Oxford garden, in 1680. 36. *A. reflexum*, leaves ovate, smooth; peduncles axillary, fruit-bearing, elongate, recurved; stem procumbent; this annual plant rises with infirm procumbent stems, seven inches high, bearing white flowers, with a yellow mouth, placed on solid peduncles; it grows near Meffina; and was discovered in Barbary by Branden. 37. *A. pedunculatum*, leaves linear remote; flowers panicled; peduncles longer than the leaf, fluff, upright; leaves seven inches high, bearing branching; flowers yellow, streaked with blue; a native of Spain. 38. *A. lappopodium*, leaves crass, foet, recurved at the tip; spikes ovate, villose; flowers herbaceous, nearly a foot high; leaves lanceolate-linear, flowers small, yellow with two orange spots within the palate; a native of Siberia. ***No leaves. 39. *A. aphylum*, a capillary midne; this is a very singular plant, resembling a kind of moss (*pinchanum*); no part of it produces any leaves: found near the Cape by Thumberg. *****Corollas gaping, or tail-lefs. 40. *A. majus*, great toad-flax, or snap-dragon; flowers without tails, in spikes; calyces obtuse, villose; stem from one to two feet high; leaves lanceolate or ovate; flowers violet, lower lip white, mouth yellow, spur very short pointed; a British annual, growing in sandy ground, and flowering from June till August. Eng. Bot. 120. 41. *A. orontium*, lefter toad-flax, corolla without a tail; flowers sub-pripled; calyces digitate, longer than the corolla; stem erect, a foot high; leaves lanceolate; corolla a pale purple; lips rose-coloured; palate yellow; spur very short, obtuse; this much resembles the preceding species; it is a British annual, affecting a sandy and calcareous soil, and flowering from July till August. Curtis, Lond iv. 45. 42. *A. papilionaceum*, corolla tail-lefs; flowers axillary; calyx papilionaceous; leaves flagellate; leaves ovate, entire, alternate; calyx five-leaved; upper lip of the corolla bend, lower trident: a native of Perlia. 43. *A. aferina*, heart-leaved toad-flax, corollas without tails; leaves opposite, heart-shaped, crenate; stems procumbent; a low, trailing annual; flowers of a dingy purple colour above; below greenish; a native of Italy and the south of France; cultivated in 1669, by Jacob Bobart. 44. *A. molle*, woolly-leaved toad-flax; corollas without tails; leaves opposite, ovate, tomentose; stems procumbent; flowers white villose; upper lip streaked with red; a native of Spain; cultivated by Miller, in 1748. 45. *A. unilibiatum*, corollas without tails, furnished with two calluses; leaves alternate, pinnate; stem panicled; found near the Cape, by Thumberg. *****Corollas gaping. 46. *A. bellisulphurum*, daily-leaved toad-flax, root leaves tongue-shaped, toothed, marked with lines; stem-leaves partite, entire; flowers very small, in a long spike, which frequently contains one hundred flowers; it is a biennial or triennial, with branched stem, two feet high: a native of the south of Europe; and cultivated in England, in 1629. 47. *A. Ca. wadeni*,
ANT

Canada toad-flax, leaves linear, alternate; lower lip of the corollas spreading out, flat; an annual, with a filiform item, about a foot high; flowers racemose, alternate; a native of Virginia. 48. A. microanthum, small-flowered toad-flax, item herbaceous, erect; lower leaves quartenary, upper alternate; flowers very small; spur short, interior; an annual, with very small blue flowers, having a white palate; they are axillary, dilant, solitary, terminating the item; a native of Spain, near Madrid. 49. A. reticulatum, leaves linear, channelled, laciniate; those on the radical florets generally in five; flowers-flawks shorter than the bract; flowers thrice as long as the calyx; spur conical, acute, a little curved, the twice length of the peduncle, yellow, thread; upper lip erect; segments acute, divergent, thread; before expansion purple, changing to a blood-red, and afterwards violet-coloured; it is perennial, with herbaceous branched erect items, having its radical flowers proflate, and producing only one flower on each peduncle placed alternately; discovered at Algiers, whence it was sent to the royal garden at Paris, by professor Desfontaines. Its seeds were transmitted to Dr. Smith by Mr. Thouin; and from these seeds several plants were produced, in Chelsea garden, by the care of Mr. Fairbairn. Smith. loc. c.r. fac. t. 1. 2. 10. A. pignum, dwarf toad-flax, leaves fagitate; peduncles capillosese; items wand-like, proflate; leaves an inch long upon long foot flanks, calyx extremely small; flowers yellow, little, each upon peduncle, axillary, peduncles. 51. A. eryngium, lower leaves in fours, linear; flowers in racemes; the upper leaflet of the calyx twice as long as the others; it is annual, having several wand-like items nearly upright, and linear-lanceolate glaucous leaves; flowers in a terminal raceme, which contains about 30 or 40; these are yellow, and commonly their lower and upper lips are bluish; spur of the length of the flower, recurved and variegated above, with violet-coloured streaks; this species varies into what Linnaeus has termed pellaria, from one to five or six points of yellow flowers on the same plant; it is a native of Spain. 52. A. hexandrum, leaves opposite, cordate-ovate, ferrate; peduncles axillary, one-flowered. Flav. Auct. n. 235. A native of the island of Otaheite in the South Seas. The five last species are to be considered as new, none of them being noticed by Murray in the fourteenth edition of the "Sydenham Vegetabilium," published in 1784.

Propagation and Culture. The various species of snap-dragon are raised from seeds, which may be sown in April or May, or in Autumn: all the varieties of the 49th species, sown late in spring, may in July be planted out in borders, where they will flower the following spring; or they may be sown early in the spring, for flowering in the autumn of the same year; but in this case the plants are not so likely to withstand the winter; and if the autumn prove bad, they will not perfect their flowers. Any of the perennial snap-dragons may be propagated by parting the roots, or by cuttings, which, during the summer months, will readily take root. They are all pretty ornaments in a garden, and requiring very little culture, are rendered more acceptable. The antirrhins are hardy plants, and will in general refight the cold of our winters; but the tenderer species, or those that are natives of warm climates, should be planted in pots, and removed into shelter, or placed under a hot-bed frame during frosty weather. The soil and situation in which the different species grow in a wild state, should always be considered, and their culture adapted accordingly; a dry gravelly or sandy soil well suits the 49th species and several others, especially those that are natives of Britain; and should these be planted in a rich moist soil, they become very luxuriant in a short time, but are very liable to rot in autumn or winter. Many of these plants are permitted to scatter their seeds, and thus suffered to propagate themselves, the young plants only requiring thinning where they come up too close, and removing any weeds with which they may be encumbered. See Miller's Dictionary, by Martyn.

The A. linaria, or common toad-flax, is the only plant of this genus to which any medicinal virtues have been ascribed: its leaves, which have a bitterish and somewhat saline taste, are reported to be diuretic and cathartic; they have been recommended in dropsies and other disorders requiring copious evacuations. This plant has also been used as a relievant in jaundice and other visceral obstructions; but it has chiefly been valued as an external application in hemorrhoidal affections, employed in the various forms of ointment, fomentation, and cataplasm. An augmentum de linaire is to be found in the Wirttemberg, Brandenburg and Danish pharmacopoeias. Linnaeus (Flor. forn.) says, this plant is used as a poison for flies. See Murray, vol. ii. p. 153. Woodville, Med. Bot. vol. iv. p. 25.

ANTIRRHINUM, in Ancient Geography, a promontory and small town of Lucania, at the entrance of the Cornish Gulf, opposite to Rhium, whence its name.

ANT-SABBATARIANS, a modern religious sect, who oppose the observance of the Christian Sabbath.

The great principle of the ant-sabbatarians is that the Jewish Sabbath was only of ceremonial and not moral obligation; and consequently is abolished by the coming of Christ. See SA. 5th.

ANTISAGOGE, in Rhetoric, a figure differing little from that called concession. The following passage from Cicero is an instance of it: "Difficilis ratio bellii gerendi; ut plena fidei, plena pictatis; et sic dicis, magnus labor, multa percussa propinquitur; at gloria ex his immortalibus celt conscriptura."

ANTI-SEPTIC, something opposed to the reanonings and syphilis of Pyrrophiids, or septicums.

ANTIQU, compounded of ari, against, and σκοτος, a shadow, in Geography, denotes people who dwell in the opposite hemispheres of the earth, and whose shadows at noon fall in contrary directions. Thus the people of the north are antefic to those of the south. The one project their shadows at mid-day towards the arctic pole; and the others towards theantarctic pole. The antefics are very often confounded with the Antecis, though the former term is more general than the latter. The antefic fland contadigit avulso from pericis, &c.

ANTIQU, is sometimes also used, among Astrologers, for two points of the heavens, equally distant from the tropics. Thus the signs Leo and Taurus are called antefics to each other. ANTIQUCOCUTICAE, in the Materia Medica, medicines proper for the cure of the fevers.

ANTISEPTIC, from arii, and πατρις, patriis, of πατρις, to putrify, an appellation given to such substances as resist putrefaction.

We have a curious experiments in relation to antiseptic substances by Sir John Pringle, who has ascertained their several virtues. Thus, in order to settle the antiseptic virtue of salts, he compared it with that of common sea-salt; which being one of the weakest, he supposes equal to unity, and expresses the proportional strength of the rest by higher numbers, as in the following table.

<table>
<thead>
<tr>
<th>Salt</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea salt</td>
<td>-1</td>
</tr>
<tr>
<td>Salt Gemma</td>
<td>+1</td>
</tr>
<tr>
<td>Tartar vitriol</td>
<td>+2</td>
</tr>
<tr>
<td>Spiritus Mindereri</td>
<td>+2</td>
</tr>
<tr>
<td>Tartar Salubris</td>
<td>+2</td>
</tr>
<tr>
<td>Salt dulcetius</td>
<td>+2</td>
</tr>
<tr>
<td>Crude Sal Ammoniacs</td>
<td>+3</td>
</tr>
</tbody>
</table>
In this table the proportions are marked in internal numbers; only to some there is added the sign +, to show, that these salts are posseffed of a stronger antifeptic virtue than the number in the table expresses, by some fractions; whereas in the third half, where the same sign imports, that the salt may be stronger by some units.

Some refining and other substances even exceed the antifeptic virtues of the natural salts; thus myrrh, alfa-fericida, terra Japonica, and aloes, are at least twelve times more antifeptic than fcn.falt. Two grains of camphor are equivalent to fifty grains of that salt. An infusion of a few grains of Virginia snake-root, in powder, exceeds twelve times its weight of fen-falt. Chamomile flowers have nearly the same extraordinary quality. The Jefuits bark has it also. Besides these, pepper, ginger, faffron, comfrey-root, are twelve times more antifeptic than fen-falt. Dried fage, rhubarb, the root of the wild valerian, mint, angelica, ground ivy, fenn, green-tea, red roses, wormwood, mullard, and horde-radiata, were likewise found more antifeptic than the fandard.

To the clas of antifeptics medicines may likewise be added fermented liquors, acids, spirits, and even those plants called anti-acids, and erroneously supposed beneficenions to putrefaction, particularly horde-radiata. Now vegetables possessing this virtue are the more valuable, in that being usually free of acrimony, they may be taken in much greater quantities than either spirits, acids, refining, or even the neutral salts.

Antifeptics are prescribed in all putrid, malignant, and pestilential cases. It is to be remarked, however, that different kinds of them are to be given in different difeases, and even in different stages of the same disease. Thus, the bark is a specific in a gangrene, when the vessels are relaxed, and the blood resolved or disposed to putrefaction; but will fail, if the vessels are too full, or the blood too thick. It must be confefled, however, that inferences drawn from the effects of antifeptics on dead putrefactive matter, may mislead us considerably in their application to the living human body. The putrefactive tendency of the fluids, suppoed to be prevalent in fcarry and contagious fevers, cannot be obviated by the most powerful antifeptics alone, but will oftentimes yield to substances scarcely antifeptic in the lowest degree. On the contrary, ganrergue, though generally treated with astringents and antifeptics conjoined, has often been arrested by animal food and volatile alkali.

From the great antifeptic virtue of alnun, the bark, and other astringents, it should feem, that affraction had no small share in the cure of disorders termed putrid; and, indeed, the very nature of putrefaction consists in a separation or diffusion of the parts. But as antifeptics are improper to be administered in many cases, comfrey-root, alka-root, camphor, &c. may supply their place; which, though highly antifeptic, have very little, or any, of an antifeptic quality. Pringle’s Obs. on the Difeafes of the Army. See Dr. Macleod’s Essay on the respective Powers, &c. of Antifeptics.

Antifeptic substances, in Agriculture, are such substances as have a tendency to reft the putrefaction and decay of animal and vegetable matters, when united with them, either beneath the foil or upon its surface, and in the dung or compost heap. Aluminous and vitreous substances are most of this kind; and likewise the astringent principle of different vegetable matters.

ANTISIGMA, among the Ancient Grammarians, signifies one of the notes of fentences affied to thofe verbs whose order was to be changed.

ANTIPASMODICS, in the Materia Medica, are medicines proper for the cure of spasms and convulsions. Heat, especially alternating with cold; arder, wine, spirits, opium, balm of Peru, and the effential oils of many vegetables, are the principal articles of this clas of medicines. Opium excels, for its immediate effects. Peruvian balm, in many instances, produces more lasting benefit than opium, and sometimes succeeds where opium fails. As antipasmodics, the effential oils differ in this from opium, that they act more on a particular part than on the fylflem in general, and have no fooporic effect. Where the ftrictures are produced by inanition, and a defect of vital heat, spasms are removed by thofe medicinal means that restore the vital fire, fuch as warmth, appropriate food and drink, pure airs, cordials, aromatics, and the cheerful piifions.

The other antipasmodics will be found under the particular difeafes, to which they have been applied with the greatest success. See Hysteria, TETANUS, Confuitions, &c.

ANTISPASTUS, a poetical foot, confifing of four syllables, whereof the first is short, the second and third long, and the fourth short.

ANTISPODIUM. See Spodium.

ANTISSA, in Ancient Geography, was, according to Strabo, in ancient times, an island, and thus called, because it was opposite to Lefbos, then known by the name of Ída; but having offended the Romans, it was depopulated by Labro, and the inhabitants were transplanted to Methyma.

ANTI-STANCARIANS, in Church History, a fecl of German protestants that oppofed the doctrine of Stancarius, who allerted that justification was the fole effect of Christ’s human nature, exclusive of his divinity.

ANTISTASIS, in Oratory, a defence of an action, from the confideration, that if it had been omitted, worfe would have ensued. This is called by Latin writers comparisonem argumentum: such e. g. would be the general’s defence, who had made an inglorious capitulation, that without it the whole army muft have perifhed.

ANTISTASIS, in Antiquity, denotes the gibbous part of the liver in the Grecian victms.

ANTISTES, from ante, before, and ßo, I fand, in Eccle- tiical Writers, a title usually given to bishops, though sometimes also to priets or prebendaries. Among the ancient Romans, antistes was an appellation given to the chief or first orders of the priets in the provinces.

In which fente, antistes stands diftinguished from pater and magiftri.—In the more usual fente, notwithstanding, antistes denotes the fame with fccoder.

There were also females of this quality under the title of antistes.

ANTISTHENES, in Biography, an Athenian philofopher, and the founder of the Cynic fecl, was born about the 9th olympiad, or the year before Christ 420. His firft attention was directed to military exploits, and he acquired fame by his valour in the battle of Tanagra. But changing his obiect, he studied the art of rhetoric under Gorgias, and then prosecuted the attainment of more subftantial wisdom under Socrates; and fuch was the ardour of his mind, that though he lived at the Præsum, which was distant 40 fadua from the city, he was a daily attendant on the inftructions of this admired oracoper. The virtuous manners of Socrates, and the noble independence of his spirit, attracted his notice and efteem; and he determined to make the character of his teacher the obiect of his imitation. Whilft he was a disciple of Socrates, he discovered his pro- pensity towards severity of manners by the meannets of his dress, and frequently appeared in a thread-bare and ragged cloak. His matter perceiving that he took pains to expofe,
rather than to conceal his tardy death, said to him:  
"Why so incontinent? through your rage, I lose your  
variety." (Epheb. lib. iv. c. 6.) After the death of  
Socrates, Antithenes, by a treasonable plot, induced the  
defenceless pupil of his predecessor, Melitus, and Antistias.  
When some young men came from Pontus to Athens for  
the purpose of attending upon Socrates, they were  
introduced to Antistias by Antithenes, who assured them,  
that he far exceeded Socrates in wisdom. By this conciliating  
recommendation the Athenians against those who  
had disgraced their city by the haughtiness of so excellent  
a man, was inflamed; and the consequence was the speedy  
exile of Antistias, and the death of Melitus. In the school  
established by Antithenes, and called Cynofigurum, or the  
temple of the white dog, he sedulously inculcated, both  
by precept and example, a rigorous discipline. In order to  
accommodate his manners to his doctrine, he wore a coarse  
robe, suffered his beard to grow, and carried a wallet and  
fluff, like a wandering beggar. His diet also was of the  
most simple kind, and he refrained from every kind of  
eminence indulgence. In his discourse, he cenfured the  
manners of the age with a degree of harshness, which  
procured him the surname of "The Dog." He also expressed  
the utmost contempt for pleasure, as the greatest evil, and  
declared, that he would rather he mad, than addicted to a  
voluptuous manner of living. Towards the close of his  
life, the gloomy cast of his mind, and the moroseness of his  
temper, so increased, as to render him troublesome to his  
friends, and an object of ridicule to his enemies. In his last  
illness he was fretful and impatient; tired of life, and yet  
loath to die. When Diogenes, at that time, asked him,  
whether he needed a friend, Antithenes replied, "where  
is the friend that can free me from my pain?" Diogenes  
presented him with a dagger, saying, "Let this free you!"  
but Antithenes answered, "I wish to be freed from pain,  
not from life." He paid little respect to the gods and to  
the religion of his country; nevertheless, he seems to have  
taught himself just notions concerning the Supreme Being.  
In his book, which treats on physics, says Cicero (De Nat.  
Deor. lib. i. c. 13.), he observes, that "The Gods of  
the people are many, but the God of nature is one." For  
the doctrine inculcated by Antithenes, see Cynics. The  
following maxims and aphorisms are ascribed to him:  
"As ruff composes iron, so doth envy compose the heart  
of man."  
"That fate is hateful to rain, in which no difference  
is made between good and bad men."  
"The harmony of  
brethren is a stronger defence than a wall of brass."  
"A  
wife man converts with the wicked, as a physician with the  
sick; not to catch the disease, but to cure it."  
"A  
philosopher gains at least one thing from his manner of life,  
a power of converting with himself."  
"The most necessary  
part of learning is to unlearn our errors."  
"The man  
who is afraid of another, whatever he may think of himself,  
is a slave."  
Antithenes being told that a bad man had been  
praising him, said, "What foolish thing have I been doing?"  
He wrote many books, of which Diogenes Laertius has  
given a long list; but none are extant, except two declama-  
tions, under the names of Ajax and Ulysses, which are  
published in the collection of ancient orators by Aldus, in 1513;  
by H. Stephens, in 1575; and by Canter, with a Latin  
version, as an appendix to his edition of Ariostes, printed  
c. 23. §. 32. tom. i. p. 830. Brucker's Hist. Phil. by Enf.  
vol. i. p. 296.  

ANTISTITIUS, is a term used in ancient chronicles  
for an abbey or monastery.  

ANTISTIAS, in Biography, a physician whole name  
is only known from his having been called on to examine  
the wounds of Julius Caesar, after he had been affrighted in  
the Capitol, forty-three years before the commencement of the  
Crusades.  

ANTISTEION, from αντι, and στειοκατα, letter, a  
grammatical figure, which by one letter is used instead of  
another; as ἀλι for  ἱλι. This is otherwise called  
antisthenon, by  
some writers.  

ANTISTROPHON, a kind of dance in use among the  
ancients; wherein they leaped sometimes to the right and  
sometimes to the left, till doubling their turn, or  
conversions.  

The motion towards the left, they called  
αντιφορα; from  
ἀν-αντι-φορα; and ἐναντιον, of ἐναντιον, a turn.  

It was customary among the Greeks, on some occasions,  
to dance round the altars, whilst they sung the sacred  
hymns, which consisted of three flanxes, or parts; the first of  
which, called  
φορα, was sung in turning from call to call; the  
other, named  
αντιφορα, in returning from well to east.  
Then they leaped before the altar, and sung the epode, which  
was the last part of the song. Hence,  

ANTISTROPHON is also used in Lyric Poetry, in speaking  
of the ode, which is usually divided into the  
φορα,  
αντιφορα, and  
εποδα.  

The αντιφορα is a kind of echo, or replication to the  
φορα; and the  
εποδα is a launching out from them both.  

ANTISTROPHON is also a figure in Grammar, whereby two  
terms or things, mutually dependent one on another, are  
reciprocally converted. As if one should say, "the  
master of the servant, and the servant of the master."  

ANTISTROPHON, in Rhetoric, the name with which is more  
commonly called  
epistrophon.  

ANTISYLLOGISM, in Logic, a syllogism, which  
infers a contrary conclusion to that of another  
syllogism.  

ANTITACTIC, or ANTITACTIC, in Antiquity, a kind  
of Gnomics, which owned that God, the Creator of the  
universe, was good and just; but suffered, also, that one  
of his creatures had created evil, and had engaged us to  
follow it, in order to let us in opposition to God the creator;  
and that it becomes our duty to oppose this author of evil,  
in order to avenge God of his enemy.  

Hence the name; which is derived from  
αντιτάξω,  
I oppose,  

ANTITARIUS, in Geography, a chain of mountains  
in Cappadocia, falling from the south-west to the north-east,  
and extending from Mount Taurus to the Euphrates. The  
habitants of the country now call it Rhioam-Taurus.  

ANTITHEMEN, in Anatomy, from αντι, against, and  
θεματις, the palm of the hand, is the name given by Riolanus  
to the muscle, commonly named in English adductor indicus  
natus, to which refer. Winflow also calls by this name, the  
adductor pallicis pedis, which see.  

ANTITHESIS, from αντιθέσω, I oppose, in Rhetoric, a  
setting two things together by way of opposition to each  
other, that the different qualities of each may appear the  
more strongly.  

Such is that of Cicero, in the second Catilinarian: "On  
the one side stands modesty, on the other impudence; on the  
one fidelity, on the other deceit; here piety, there sacrilege;  
here continency, there lust," &c. —Such also is that of  
Augustus to some froward young men; "Audite juvenes  
fenem, quern juvenem fenem audirete." —Such again is that  
of Seneca; "Cur autem loquuntur, ingentes pulvere."  
And that of Virgil;  

"Flectere si nequeo superos, Acheronta movebo."  
St. Augustine, Seneca, Salvian, and many other ancient  
writers.
writers, seem greatly to affect antitheses; but among the moderns they are generally deferred. Definace represents them as the favourites of young writers.

**Antithesis** is sometimes used for controversy.

In this sense we meet with **antithetic** method, antithetic discourse, &c.

**Antithesis** is also a figure in Grammar, used to the fame purpose with **antithetich**.

**Antithetarius**, a term occurring in the title of a chapter in the laws of Caunus, but not in the chapter itself.

The meaning of the word is, a man who endeavours to discharge himself of the fault of which he is accused, by recriminating, i.e. by charging the accuser with the same fault.

**Antitheton**, in *Rhetoric*, a figure wherein contraries are set in opposition to each other.

Some distinguished between the **antithesis** and **antitheton**. Volusius thinks that in the antitheton nouns and verbs are opposed; but in the antithesis, epithets only. Others comprehended the antithesis under antitheton.

**Antithora.** See *Antithora*.

**Antitragicus**, in *Anatomy*, is a muscle belonging to the pinna of the external ear. It arises from the cartilage below the antitragus, and terminates in its ridge, extending as far forwards as the antihelix.

**Antitragus** is a ridge or eminence in the cartilaginous pinna of the external ear. See the article *Ear*, external.

**Antitragus** in *Anatomy*. See *Cypsis*.

**Antitrinitarians**, those who deny the Trinity, and teach, that there are not three persons in the Godhead.

Thus the Samosatians, who do not believe the distinction of persons in God; the Arians, who deny the divinity of the Word; and the Macedonians, who deny that of the Holy Spirit; are all properly Antitrinitarians. Among the moderns, Antitrinitarians are particularly underfoot of Socinians, called also Unitarians.

The *Bibliotheca Antitrinitaria**, or *Antitrinitarian Library*, is a posthumous work of Christopher Sandius, an eminent Antitrinitarian; wherein he gives a lift, digested in order of time, of all the Socinian or modern Antitrinitarian authors, with a brief account of their lives, and a catalogue of their works. See *Unitarian*.

**Antitype**, a Greek word, properly signifying a type or figure correspondent to some other type.

The word antitype occurs twice in the New Testament; viz. in the Epistle to the Hebrews, ix. 24. and in St. Peter, i. Ep. iii. 21. where its genuine import has been much controverted. — The former says, that "Christ is not entered into the holy places made with hands, which are antitypes, the figures or antitypes of the true—now to appear in the presence of God for us." — Now *antitype*, as is elsewhere observed, signifies the pattern by which another thing is made; and as Moses was obliged to make the tabernacle, and all things in it according to the pattern showed him in the mount; the tabernacle so formed was the antitype of what was shewn to Moses: anything, therefore, formed according to a model, or pattern, is an antitype. Sykes's *Paraphrase* in loc. p. 157.

In the latter passage, the *Apocalypse*, speaking of Noah's flood, and the deliverance only of eight persons in the ark from it, says, "*Ν ο ι α ρ ν β δο ε τι *π ν σ ε β α τημιν," bat- tifim, being an antitype to that, now faves us: not putting away the midst of the flood, but the answer of a good confidence towards God." &c. The meaning is, that righteousnes, or the answer of a good confidence towards God, now faves us by means of the resurrection of Christ, as formerly righteousness faved those eight persons by means of the ark, during the flood. The word antitype, therefore, here signifies a general similitude of circumstances; and the particle α, "whereunto," refers, not to the immediate antecedent, ἥτοι, "water," but to all that precedes.

Some read, as it is in the Alexandrian and several other approved MSS. instead of ἥτοι, "*ε κα ο νες," &c. "that which is the antitype doth now save us also, that is, baptism." The term "antitype" seems here to signify no more than some similitude, or resemblance, in the two things compared. But it may be asked, what are the two things compared? and in what does the resemblance consist? Is the water of baptism compared to the waters of the flood, or baptism itself, compared to Noah's ark? or the being faved by baptism, to being faved in the ark? A judicious commentator is of opinion, that the last comparison was designed by St. Peter; and that the salvation by the ark, in this particular, resembled our salvation by christian baptism. For as those righteous persons, Noah and his family, were faved in the ark, from perilling by the deluge; so christian baptism, if accompanied with righteousness, or a good confidence, will, through the resurrection of Christ, save christrians from perilling with a wicked world. Beaufon on the *Epistles*, in *loc. cit.* vol. ii. p. 269.

**Antitype**, among the *Antient Greek Fathers*, and in the *Greek literatur*, is also applied to the symbols of bread and wine in the *Sacrament*.

Hence it hath been argued, by many protestants, that the Greeks do not really believe the doctrine of transubstantiation; because they call the bread and wine *antitype*, *antitypon*, q. d. figures, similitudes, and this even after the *consecration*.

**Antivari**, in *Geography*, a town of European Tur- key, in Dalmatia, situate on the gulf of Venice, opposite to Dari, and formerly the see of a Greek archbishop. But the Turks took it from the Venetians in 1573, and it still remains in their possession. It is about eight miles north-west of Dulcigno, and thirty south-east of Ragusa. N. lat. 42° 34'. E. long. 19° 30'.

**Antiveduto**, in *Biography*, an eminent painter of portrait and history, was born near Rome in 1552; and under the care of Giovanni Dominico Perugino, exhibited surprizing proofs of genius, and became a portrait painter of the highest reputation. In the hairs of the head, natural tint of the carnations, ana striking resemblance of the features, he had no superior. He was principally employed by the Medicin family. He had likewise a considerable talent for historical painting. He died in 1626. Pitkington.

**Antiventria**, in *Geography*, a name given by the Spaniards to one of their divisions of *Terra Firma* in South America. It comprehends the government of St. Martha, the new kingdom of Grenada, and some others to the south of Caracasa, as far as the river of the Amazons.

**Antivirgilian Husbandry**, a title by which the drill or horse-hoeing husbandry, as improved by Mr. Tull, is sometimes distinguished by writers on agriculture.

**Antium**, in *Ancient Geography*, now *Cape d'Anzo*, a town of Italy south of Rome, situate on a rock near the sea, but without a harbour, as there was one in the neighbouring hamlet, called *Ceno*. It belonged to the Volsci before it became the possession of the Romans, and was for a long time a very strong place. Dionysius Halicarnasseus, after Demaroras, says, that it was founded by a son of Circe; others ascribe its origin to Aecanius. However that be, the Romans, under the conduct of Numicius, took pos- session of it, A. U. 263; and within two years, sent a colony thither. The colonists and inhabitants were called *Anticata*. Livy (l. v. c. 14.), and Florus (l. i. c. 17.), informs us, that the Romans acquired their first reputation in naval affairs against
the Antiates; whose ships they partly conveyed into the
arsenal of Rome, and partly burnt, and with their books,
or toils, they adorned the pulpit erected in the forum,
hence called of. Horace refers to a famous temple of
Fortune in this place, 1. 1. od 35.

"O Diva, gratum quae regis Antium," &c.

Caligula and Nero were born in this city; and Suetonius
says, that the former proposed to retire thither after he
had massacred the principal persons of Rome, and the latter
alligned it as a place of retreat for the veteran soldiers.
Tacitus informs us, that Nero was at Antium, when news
was brought to him of the conflagration of Rome, which
Suetonius charges upon himself. In Christian times, Antium
became the seat of a bishop; but it is now extinct.

ANTIXENI, a people of Idas, who, according to
Pliny, lived on the other side of the Indus.

ANTLER, among Hunters, the fall of the pears that
grow about the bur of a deer's horn. There are also
autlers, brow-autlers, &c.

ANTLESTORF, in Geography, a town of Germany,
in the archduchy of Austria, six miles east of Eutzeistorf.

ANTLIA, an ancient machine, supposed to be the fame
with our pump.

Hence the phrase, in antium conducmari, according to the
critics, denotes a kind of punishment, whereby criminals
were condemned to drain ponds, ditches, or the like.

ANTOECI, in Geography, those inhabitants of the earth
who live under the fame meridian, and at the fame distance
from the equator; the one toward the north, and the other
toward the south.

The word is formed of AN, contra, and ECI, inhabit.

The Australi are contradistinguished from the Persici, and
are frequently confounded with the Amfici.

Hence the Antoei have the fame longitude, and equal lati-
attudes, only of a different denomination; and, of course,
they have precisely the fame hour of the day and night, but
opposite seasons: when it is 12 o'clock in the longest summer’s
day with one, it is 12 o'clock of the shortest winter’s
day with the other; and hence the night of the one is equal to
the day of the other.

ANTIOING, a town of the Netherlands, in the circle
of Hainault, near the Scheldt, 14 league S. of Tournay.
It is the chief place of a canton in the district of Tournay, and
department of Jemappe. The place contains 14577, and
the canton 14849, inhabitants; the territory comprehends 125
kilometres and 90 communes.

ANTOMOSIA, from AN, contra, and MOSIA, I suffer, in Ancient
Writers, an oath taken by both the parties in a criminal ac-
cusation; whereby the accuser charges the other with the
fact, and the accused in his turn denies the fame.

In which sense, antomosia amounts to the fame with
domosia, though some distinguish between the two, restraining
antomosia to the oath of the person accused, whereby he
engages to make no other than a fair defence; and domosia
to the protector’s oath, whereby he swears that his ac-
cusation is justly founded.

Others will have antomosia properly denote a law-suit
about things to which there are no witnesses, and which
can only be decided by the oaths of the parties. Others again
will have it to be, where the accused party alleging fiek-
ness for his non-appearance, the protector takes an oath
that the fickness is only feigned, upon which the judges
proceed to sentence.

ANTONA, in Ancient Geography, a name given by Ta-
citus (Vit. Agricol.) to a Britifh river, concerning which
antiquarians are not agreed. Some writers, as Camden,
Carte, &c. appropriate the name to the Nan of North-
tain a small portion of an alkaline salt, a larger portion of sea-fall, and a yet larger of a calcareous earth, and with this a very considerable quantity of a subtile and penetrating mineral spirit.

It is a very temperate water, not too strongly operating either by flood or urine; and hence it is a very proper drink for persons in chronic and in many acute cases, either alone, or mixed with wine, to supply the place of malt liquor, which is proper but in very few illnesses. A long use of it alone may also prove of considerable service in hypochondriac cases.

ANTONIANO, SILVIO, in Biography, a cardinal and learned man of the 16th century, was born at Rome in the year 1549; and, at the early age of 10 years, distinguished himself by extemporaneous productions in verse. Having given various proofs of his singular talents in this way, he was taken under the protection of the duke of Ferrara, who provided him with excellent masters to instruct him, affixed him a pension, and established a professorship of belles lettres, with which he was honoured at the age of 17 years; and on this occasion he pronounced some orations, which were afterwards published. When cardinal de Medicis succeeded to the popedom, under the name of Pius IV., he went for Antoniano to Rome, and made him Latin master and secretary to his nephew, cardinal Borromeo. He was also appointed professor of polite literature in the college at Rome; and discharged this office with such reputation, that he had for his auditors not only a prodigious number of people, but even 25 cardinals. He was afterwards chosen rector of the same college. At the death of Pius IV., he was chosen secretary of the sacred college by Pius V.; and occupied this post for 25 years. Clement VIII. made him secretary of the briefs, afterwards his chamberlain, and finally a cardinal. He fell a sacrifice to intense study, in his 65th year. Antoniano is said to have written with such ease and correctness, that he never made a blot or erasure; and his manners were so irreproachable, that he is said never to have transgressed the bounds of the strictest chastity. He left a variety of works both in prose and verse; of which the principal are, "De Chirilliana Puerorum Educatione," "Dissertatio de Officiorum Solidis in Morbe Chirilli," "De Succedentia Apostolica," "De Stylo Ecclesiastico seu de conferenda Ecclesiastic Historia," "De Primatu Sancti Petri," "Lucubrations in Rhetoricam Artillobolii, et in Orationes Ciceronis." It is also said that he had a share in the catechism of the Council of Trent. Gen. Dict.

ANTONIDES, J. VANDER GOES, an eminent Dutch poet, was born of anabbazial parents, at Goes in Zealand, in the year 1647. After a tolerable education, he was apprenticed to an apothecary; but the fame of Vondel and some other poets of his country, led him to cultivate his natural talent in this way. He began with translations from the best Latin writers, and then launched into original composition. His tragedy upon the conquest of China by the Tartars, entitled "Trazii," was followed by "Belona in Chains," which was highly applauded by the best judges. But his capital work was entitled "Y Stroom," or the River Y, which forms the port of Amsterdam. This recommended him to M. De Bufero, deputy in the college of admiralty, who procured for him the place of secretary in that department. Soon after he had been thus raised from his obscure situation, he married a clergyman's daughter, who had a taste for poetry; but abandoning the Muses, and devoting himself to the duties of his office, he soon died of a consumption in the flower of his age, in 1684. He had proposed, and begun a life of St. Paul, but left only a few fragments of it.

His works were published, in 1610, at Amsterdam, in 1714, under the inspection of Mr. Hoogstrate, one of the masters of the Latin school. Gen. Dict.

ANTONIENBERG, in Geography, one of the highest points of the Swiss Alps, in the Valais.

ANTONINE COLUMN, in Architecture and Sculpture. See Column.

ANTONINUS PIUS, or Titus Aurelius Fulvius Valentine Antoninus, a Roman Emperor, was born at Lararium or Lavarium, in the vicinity of Rome, A. D. 86; and descended from virtuous and honourable ancestors at Nimis in Gaul. Both his grandfathers, and his father, were confuls. After the death of his father, his education was completed in the house of his maternal grandfather, Arrius Antoninus. At an early age he concluded the affiection of all his relations, so that when they died, he was distinguished by their bequests, and became rich; and as he advanced to maturity, he combined, in a very eminent degree, all the virtues of the heart with a gentle and majestic countenance, a cultivated understanding, a commanding eloquence, and an exemplary conduct. In his sentiments and actions he was guided by moderation; and he was perfectly free from affectation and vain glory. Having attained the confidence A. D. 116, he was afterwards one of the four consuls appointed by Adrian to govern Italy, and became proconsul of Asia; where, by the mildness of his authority, and the ability of his manners, he engaged the affection and attachment of persons of all ranks and parties. On his return to Rome, he was admitted into the council of Adrian; nor did the emperor pursue any measure of consequence without his advice. He married Anna Faultina, the daughter of Annius Verus; and though he was not very happy in his choice, he behaved with singular respect to the father, comforting him in his old age, and supporting him with his arm when he came into the senate; and it is said, he obtained the surname of Pius. By this marriage he had two sons, who died young; and two daughters, one of whom, named Faultina, was married to Marcus Aurelius, afterwards emperor. Upon the death of Aelius Verus, Adrian determined upon the adoption of Antoninus; and having overcome his reluctance to undertake so great a charge as that of the Roman empire, he declared his nomination in the presence of a council of the principal senators, on the 25th day of February, A. D. 138, and immediately made him his colleague in the proconsular and tribunitian authorities. He also caused him to adopt the son of Verus, an infant of seven years of age; and Marcus Annius, afterwards Aurelius, who was about 17 years old. Upon the death of Adrian, July 10, A. D. 138, or, as some say, A. D. 159, Antoninus succeeded to the throne, amidst the congratulations of the senate, and to the universal satisfaction of the Roman people. His accession was marked by the usual titles and honours conferred upon the Roman emperors; to which the senate added that of Pius, either from the circumstance already mentioned, or on account of the respect with which he treated the memory of his predecessor. Although the pacific reign of Antoninus affords little variety of incident, it is nevertheless to be regretted, that we derive our direct information of this reign from a confused and obscure historian, Capitolinus; the records of Dio Cassius having been lost. From the testimony of this historian, however, it appears, that, after his accession to the empire, he pursued the fame course of conduct which he had so well whilst he was a private person; fixing the attachment of his friends, and conciliating his enemies; confiding the senate on every transaction of importance, and frequently giving an account to the people of all his actions.
and negotiations. Such was his general conduct, that M. Aurelius was convinced, by his example, that a prince might lead a private life even in a court. He reduced most of the imposts and tributes, and enjoined his collectors to exact them without severity; observing, that he rather chose to be poor, than that his coffers should be filled at the expense of an oppressed people. Soon after his accession, he distributed the greatest part of his private estate among the indigent citizens; and when the empress Faustina required at his liberality, he told her, that a prince ought to have no private interest, no private property, and nothing in view but the public welfare. He was solicitous in the choice of the governors of provinces; and, it is said, that he never promised an undeserving person to any employment or honour. The penalties of uncleanness were abolished, and he alleged, that he could not bear to see the state impoverished by those who did it no service, but lived idle upon the labours of others. But though he was sparing of the public money, no one ever charged him with avarice, as he was exhibiting daily evidence of an unbounded generosity. He never would accept legacies from so many as had children; and he ordered the estates of criminals condemned for extortion to be restored to their heirs, after having rendered satisfaction to those whom they had pillaged. He also extirpated the whole tribe of informers; and upon any misfortune that happened to any city or province, he was ready to lessen their tribute or taxes. Antoninus everywhere where it yielded men of learning, encouraged the education of youth, and spent considerable sums in providing for the children of indigent parents. Although he was not addicted to building, he raised several lofty edifices in Rome and its vicinity. He caused a post to be made at Caieta or Cela; repaired that of Terracina; finished Adrian's magnificent mausoleum; built a stately palace at Lorium in Aetolia, about ten miles from Rome, where he had been educated; and he contributed large sums towards repairing several ancient buildings in Greece, Ionia, Syria, and Africa. It is probable that Nimes was indebted to him for those magnificent decorations that still distinguish it, the amphitheatre and aqueduct. Having declared at the commencement of his reign, that he would not spoil the blood of any senator, he religiously observed his engagement; so that when one was convicted of parricide, he contented himself with banishing him, after he had confessed his crime. When Attalus Tatianus and Eucratides were accused of conspiring against his life, and after the latter had destroyed himself, and the former was banished, he took the son of the survivor under his care, and brought him up as if he had been his own child; nor would he suffer any inquiry to be made after their accomplices, alleging to the senate, who urged him to it, "I do not care the world should know by how many perfons I am hated." In the exercise of jurisprudence, he inflicted three decrees which manifest a laudable spirit of equity. The first was, that no one should be again prosecuted on a charge of which he had been once acquitted; - the second, that the children of a person become a Roman citizen, who were not so themselves, should not, as in former times, forfeit their inheritance to the treasury; - and the third, that a woman prosecuted for adultery by her husband, should have a right to remitention. He also allowed refractions in favour of the Chriftians, to prevent them from popular rage and legal injustice. One of thefe, addressed to the people of Afa Minor, is preferred by Eusebus (E. H. I. iv.), and it bears testimony to their character. So pacific was his disposition, that he never engaged in any war which he could avoid; and was often heard to say, "that he had rather save one citizen than destroy a thousand enemies."

Some commotions, however, arose in various parts of the empire; but they were suppressed, without much difficulty, by his lieutenants. In Britain, the incursions of the Brigantes were suppressed; and the boundaries of the Roman province were extended, by building a new wall to the north of that of Adrian, from the mouth of the Elbe to the north of the Tweed.

Antoninus, by his temper and conduct, gained the affection of not only his own people, but by whom he was revered as their father and protector, but of those who were the avowed enemies of Rome. Such was the influence of his character, that a letter addressed by him to the king of Parthia, induced him to decline a meditated invasion of Armenia, and to disband his troops. The kings of Hyrcania, Boeotia, and India, sent embassadors to him, court- ing his friendship and alliance. Parthamene, king of Iberia, paid him a visit in person at Rome; and the Lazi, the Armenians, the Quachi, and several other nations, readily received such persons as he was pleased to appoint for their rulers, though they were not then subject to the empire. Antoninus is by some historians compared, and by others even preferred, to Numa, on account of the tranquility which Rome enjoyed during the greatest part of his reign; and his extraordinary care of all things belonging to the worship of the gods, and to religion.

Some per sons have thought that he extended his indulgence to the empress Faustina, whose life was dissolute, to an improper and culpable extreme. After the died, she was honoured with divine worship, priests, temples, and statues of gold and silver; games were also instituted in her honour; and her solitude was carried on by his express order, amongst those of the other gods, at the Circenian sports.

Soon after his advancement to the throne, Marcus Aurelius was distinguished by his favour; for he married him to his daughter Faustina, and declared him Caesar; nor had any reason to regret the honours he conferred upon him, and the confidence he reposed in him. In this state of domestic and public tranquility, Antoninus attained his 74th year; and being feigned with a fever at one of his country seats at Lorium, he closed his life, in the month of March, A. D. 161. He forewarned the event, and munified the principal officers of state to attend him; and in their presence confirmed his choice of Marcus Aurelius as his successor, and caused the imperial insignia to be carried to him. In the state of derangement, occasioned by his fever, his thoughts were evidently directed to the republic; and he deprecated the anger of the gods whom he supposed hostile to it. In a lucid interval, he gave as a watchword to the praetorian tribunes, "Equanimities;" and then placidly expired, after a reign of 22 years seven months and 26 days. His funeral was conducted with pomp and magnificence; his remains were deposited in the tomb of Adrian; he was ranked by the senate among the gods; a temple was built to his honour; and priests, sacrifice, and annual sports were instituted. His death, though at an advanced age, was the subject of universal lamentation; and so highly honoured was his memory, that succeeding emperors chose to bear the name of Antoninus, as the most popular appellation they could assume. Marcus Aurelius and the senate conferred upon his memory a memorable pillar, which served as one of the principal ornaments of Rome, under the name of the Antonine Column. Anc. Un. Hist. vol. xiii. p. 294—299. Crevier's Hist. of the Emperors, vol. viii. p. 198—232. Lardner's Works, vol. vii. p. 583—587.

Antonius, Marcus Annius Aurelius, one of the most illustrious of the Roman emperors, was born in the year of
of Rome, 874, A. D. 121, during the second consulship of his grandfather, L. Annius Verus; and descended from an honourable family of Sucebiius or Uebius, of Betica, supposed to be related to that of Adrian. He was distinguished by the patronage and favour of Adrian in his early years; and at the age of six years he advanced him to the rank of knighthood, at eight admitted him into the college of Salii, and at length adopted him into the imperial family, so that his succession to the empire was secure. The Emperor used to call him M. Annius Veritissimus, on account of his great sincerity. When he was adopted, he took the names of M. Enus Aurelius Verus. Aurelius being an appellation peculiar to the family of Antoninus, and Ælius belonging to that of Adrian, into which Antoninus had been adopted. Upon his accession to the empire he assumed the name of Antoninus; and he is usually distinguished from his predecessor by the prenomen of Marcus, or surname of philosophus, which was given him by the unanimous consent of historians, and not by any decree of the senate. The care of his education in his infancy was devolved on his paternal grandfather, Annius Verus; and in his mature years, he was brought up in the palace, and instructed under the direction of Adrian, in all the arts that pertain both to the body and mind; eloquence and poetry, however, engaged little of his attention, for his thoughts and time were devoted to philosophy; and more especially to that kind of philosophy that tended to regulate the temper and conduct. His principal masters were Herodes Atticus, and Cornelius Fronto, Greek orators; and above all, Junius Rufinus, who joined to an infallible birth a hereditary taste for the stolid philosophy. Such was his proficiency under these instructors, that at the age of 12 years he assumed the philosophical gown. To his intense study he added the austerity of the profusion to which he was devoted; and by unvaried application and strict regimen he prejudiced his health. With the gravity of a philosopher, however, he blended no part of the severity; his address was agreeable and engaging to all with whom he had any intercourse; he was virtuous without pride, modest without timidity, and grave without melancholy. To his masters he was respectful and grateful; he honoured them living and dead; and kept their images of gold, with those of his household gods, in his domestic chapel; and offered up chaplets of flowers and victu; at his tombs. At 15 years of age, he put on the main gown, and soon afterwards was appointed prefect of the city. About this time he manifested his Antecedent meekness, by surrendering to his only sister, Anna Cornelia, all his father's effects. His adoption into the Aurelian family, by Antoninus Pius, took place in his 17th year, but such was the superiority of his mind to all distinctions of this nature, that the honour produced no change in his disposition and mode of life, nor in the course of his studies. After his adoption, he was appointed quaestor; and immediately upon Adrian's death, Antoninus married him to his daughter Faustina, advanced him to the dignity of Caesar, and conferred upon him, in quick succession, a variety of civic honours. He was appointed chief of one of the centuries of Roman knights, had a household attached to him, was twice consul, and received the tribuniate and provincial authorities. Such was the emperor's confidence in him, that he was called to all his public councils, and he gave away no office without his advice and approbation; and such was Aurelius's attachment to the emperor, that, during almost 23 years, he never flpt apart from him more than two nights either in town or country. Of the disinterestedness of Aurelius, we have a singular instance on his first accession to the throne. L. Aurelius Commodus, the son of that Verus whom Adrian had adopted, had been joined with Marcus Aurelius in the adoption of Antoninus, and equally intended for the succession. But Antoninus, on account of the errors and vices of his youth, had excluded him from any share in the sovereignty, and appointed Aurelius heir to the empire; and, upon the death of Antoninus, the senate confirmed his purpose. Aurelius, however, procured Commodus to be declared his colleague, promissed him his daughter Lucilla in marriage, and ordained that he should take his own original name of Verus, by which name he was afterwards known. In the first year of Aurelius's reign, Faustina was delivered of male twins, one of whom died under age, and the other was Commodus, who succeeded his father in the empire, disgraced his elevation, and became notorious for every kind of profligacy. About the same time, the public tranquillity was disturbed in Germany, Great Britain, and Parthia; but the most important events were, the invasion of Armenia by Valerian, king of the latter country, and the irruption into Syria. Verus proceeded to the east, rather making a tour of pleasure than conducting a military expedition, and took upon him the supreme command. After four years the war terminated in a treaty, which restored the king of Armenia to the throne; and though Verus was an object of contempt, on account of his luxurious dispositions, to foreign nations, and had little personal share in the honour of bringing the war to a termination, he was dignified with the title of "Imperator" by the army, and other pompous apppellations. During the course of this war, he married Lucilla; and, on his return to Rome, both emperors were united in the triumph, and a cordial harmony subsisted between them. The character of these two emperors was, however, essentially different. Verus was debauched and extravagant; and if we except cruelty, in the exercise of which he was restrained, he exhibited all the follies and vices of the world of his predecessors. Aurelius, on the other hand, was a philosopher on the throne; and exhibited a pattern of every private and public virtue. He distinguished himself more than any former emperor had done, by his respect and deference to the senate, and by his attention to the happiness of the people. He would not touch the money in the treasury, without the express permission of the senate: "Every thing," said he, "belongs to the senate and people: we have nothing which we do not hold of you, the very palace we inhabit is your property." When he was under a necessity of patiently enduring those vices habits which he could not reform by gentle means, he used to say, "We cannot make men as we wish them to be; we must take them as they are, and do the best with them that lies in our power." So determined was Aurelius in fulfilling exactions, that he checked the rapacity of his soldiers at a moment of victory, by telling them, "All that is given you beyond your due must come from the blood of your parents and relations." In a time of public distress, he preferred selling the furniture of his palace, and the rich wardrobe of his wife, to increasing the burden of the provinces. Although he did not wholly abolish, he restrained the expense of public buildings: and he softened the cruelty of the combats of the gladiators, by substituting less hurtful arms in the room of those that were destructive. Lenity was the chief foible of his character; and yet he ever manifested a strict regard to justice. He expedited the decision of legal processes, increased the number of days on which the courts were to sit for the dispatch of business, and followed the example of his predecessor in his improvement of jurisprudence. The right of succession of children to their mothers was made by him a part.
a part of the Roman law, and he appointed a particular prior for the guardianship of minors.

The close of the life and reign of this tranquil prince was disturbed by the hostilities of the Marcomanni and other German tribes; and when a peace had been concluded with the Parthians, their hostilities, which had become formidable, demanded attention. In the year 116, the two emperors having levied an army, left Rome together, and wintered at Aquileia. Antoninus had prepared for the conflict that was expected, by a variety of religious ceremonies, which he thought might tend to render the deities propitious, while they manifested their own attachment to the forms of religion which superstition had devised and sanctioned. Till the death of Venus, in the year 169, nothing decisive seems to have occurred. Worthless as his character was, Antoninus professed upon him divine honours: and in his memoirs, he speaks of him with undue respect, and in a manner that is not very compatible with the report which he calls upon him in his address to the Senate. In the following year, the emperor, who was now sole protector of power, returned to Panormia, and vigorously opposed the Marcomanni, who had advanced as far as Aquileia. During a conflict which detained Antoninus in these parts for five years, he had many opportunities for the exercise of fortitude and patience, and for the practice of those virtues which he had cultivated in his youth. The most celebrated event which occurred in this period, was a victory obtained by the emperor in person over the Quadi, the consequence of a sudden storm of rain, hail, and lightning, which disconcerted the barbarians, and was regarded as miraculous. Antoninus and the Romans ascribed it to an intercession of Jupiter and Mercury, but the Christians attributed it to the effectual prayers of a legion of Christians who served in the army, hence called the "thundering legion." See a more particular account under that article. Panormia was at length delivered from the incursions of the barbarians; to whom territories were assigned on the confines of the empire. The subjugation of the Marcomanni was delayed by the revolt of Avilius Caffius, who assumed the purple in Syria; and who obtained support in consequence of a rumour of the emperor's death, which he contrived to circulate. This rebellion was soon quelled by the officers of Caffius, who conspired against him, and killed both himself and his son. Such was the magnanimity of the emperor on this occasion, that, having obtained the papers of Caffius, he committed them to the flames without reading them. After the suppression of this insurrection, Antoninus made a progress through the east, and was accompanied by Faustina, who died in this journey, after a short illness. In her lamentations he rivalled the infamous Meplieda; and yet, such was the fideliousness of her husband, that he paid her divine honours after her death. This conduct on the part of the emperor, either betrays great want of penetration, or offers an inexcusable insult to decorum and good morals. Whilst the emperor visited Syria, Egypt, and Greece, in the year 176, he was initiated at Athens, in the Eleusinian mysteries, and he conferred various privileges on this feast of philosophy. On his return to Rome, after an absence of eight years, he obtained a triumph on account of his conquest of the Marcomanni, and profusely distributed largesses among the people. After two years, he marched again towards the Danube, where the war with the Marcomanni was renewed; and in this expedition he was accompanied by his son. Before his departure, it is said that, in compliance with the request of the people, who wished him to instruct them in the secrets of philosophy, he gave public lectures for three days; and the report of addiction adds, that he delivered similar lectures in some of the capitals of the provinces. In this new war, Antoninus was successful, and was for the 10th time honoured with the title of "Emperor." After an absence of two years, he fell ill at Vindobona, now Vienna, in Austria, apparently of a mortal disease which prevailed in the army, and died on the 7th day, March 17th, A. D. 161, U. C. 953, at the age of 59 years, and after a reign of somewhat more than 17 years. His death was universally lamented; he was deified by the acclamation of the Senate and people; his image was kept in the private houses of the Romans among their deities, and he who had not one was deemed innocuous; this worship of him continued above 100 years; and Diocletian gloried in honours as one of the principal deities.

Marcus Aurelius, notwithstanding all the good qualities by which he was distinguished, and the mildness and clemency which perhaps on some occasions he carried to a blameable extent, perverted the Christians. He was undoubtedly prejudiced against them, and in his own book, (xi. 3.), confesses very unreasonably what he ought to have approved (as the excellent Dr. Justin remarks, Dilicorius concerning the Truth of the Christian Religion, p. 57.)—their readiness and resolution to die for their religion. The ground of this enmity is particularly examined by Dr. Lardner: and he ascribes it partly to the Christians refusing to join in the common worship of the Heathen deities, and to the freedom of their thoughts upon the philosophers; partly to their upholding even the fancies in patience under all kinds of sufferings; and partly to the emperor's bigotry, both in religion and philosophy, which often militated against the judgment, and induces persons of the bed disposition to act contrary to the laws of equity on some occasions...
ANT


ANTONIO, Nicholas, was born at Seville in Spain, in 1617; and having studied law in the university of Salamanca, became agent-general for the king of Spain, at Rome. He is known as the author of a celebrated work in Spanish literature, intitled “A Catalogue of Spanish Authors,” to the compilation of which he devoted several years in the royal monastery of Benedictines at Salamanca; and for the completion of which, as well as the gratification of his taste for letters, he purchased 30,000 volumes. The work was completed in four volumes folio, and printed at Rome in 1666. It is copious, correct, and methodical; and is now scarce. He also wrote in Latin a treatise “On Exile,” which was published at Antwerp in 1639. Antonio died in the year 1684. Gen. Dig.

ANTONIO, Port, in Geography, a bay or harbour on the north-coast of the island of Jamaica, two leagues west-north-west from north-east point.

ANTONIO Island. See St. Anthony’s Island.

ANTONIO, St. Cape, lies in a small deep bay, about two leagues north-west from Cape St. Martin’s, on the coast of Valencia, in the Mediterranean, belonging to Spain.

ANTONIO, St. Port, lies in the island of Lemnos, in the Archipelago, between two hills, appearing at sea like two islands; 12 leagues north-west from Mitylene, or Lebos.

ANTONIO Flana, is a short due west of Cape Negro, on the coast of Africa, 80 or 90 leagues from the shore, which is very dangerous, and should be carefully avoided.

ANTONIO, St. Cape, is the extreme western point of the island of Cuba, in the West Indies. N. lat. 21° 45’. W. long. 84° 10’.

ANTONIO, St. Port, lies on the coast of Brazil, within the north point of the river Pará. S. lat. 21° 25; called Point Lucena, and the rendezvous of the Brazil ships for Europe.

ANTONIO De Suchitpec, St., a town in Mexico, or New Spain, on the coast of the Pacific Ocean. N. lat. 15°. W. long. 93° 6’.

ANTONIO, St., the capital of the province of Apachiera, in New Mexico.

ANTONIO, a town in the province of Navarre, in North America, on a river which runs south-west into the gulf of California.

ANTONIO De Cabo, St., a town of Brazil, in South America, near Cape St. Augustine, subject to the Portuguese, where they manufacture a considerable quantity of sugar. S. lat. 8° 34’. W. long. 35° 22’.

ANTONIO, St. a town of New Mexico, on the west side of Rio Bravo river, below St. Gregory. It is also the name of a town on the river Honda, which falls into the gulf of Mexico, north-east of Rio de Brava.

ANTONIOITO, GIO GIO, in Musical Biography. See GIO GIO.

ANTONIUS, MARCUS, the Orator, in Biography, was the greatest ornament of the Antonian family. Having obtained the quinquennial of the province of Asia, he had proceeded to Brundisium, when he was informed that he was accused of incest; and that the cause lay before Caecilius the praetor, who was a very severe judge. Declining to avail himself of the privilege belonging to those who were absent in the service of the commonwealth, against whom no accusation could be preferred, he hastened back to Rome, and submitted to a trial, in which he was honourably acquitted. Whilist he was praetor, Sicily fell to his lot; and he cleared the seas of the pirates which infested those coasts. He was conful in the year of Rome 653, before Christ 101, and was very active in suppressing the tumults excited by the tribune Sextus Titus. His conduct, whilst he was governor of Cilicia, obtained for him the honour of a triumph. In order to improve his talents for eloquence, he put himself under the instruction of the principal teachers of rhetoric, both at Athens and Rome. On his return to Rome, he performed the office of censor, and gained a cause against Dononius, who had on revenge preferred an accusation of bribery against him. He was highly admired and esteemed on account of both his talents and conduct; but unfortunately fell a sacrifice in the tumults occasioned at Rome by the factions of Marinus and Cinna. The soldiers who were dispatched to draw from his retirement, and to kill him, were to be overpowered by his address that they were unable to execute their commission; and the commanding officer, observing that they hesitated, and enraged that his orders were not complied with, became himself the assassin. His head was afterwards exposed before the rostra, which he had adorned with his triumphal spoils. This happened in the year of Rome 667, before Christ 87. Marcus Antonius was one of the greatest orators of Rome; and in the judgment of Cicero, it was owing to him and to Caflus, that Italy was the rival of Greece in the art of eloquence. He makes him one of the principal interlocutors in his “Dialogue on Oratory,” and in his “Treatise on famous Orators,” describes at length his character as a speaker. His distinguishing qualities were force, cere-mnus, acuteness, variety, readiness, and copiousness, and he excelled as much in action as in language. His memory was singularly retentive; and though he began to speak without any seeming preparation, he was always to much matter of his subject, that the judges seemed not sufficiently prepared to answer him. In his defence of Marcus Aquilus and others, he moved the judges, by the tears he shed, and by exhibiting the fears on the breast of his client, to such a degree, that he gained his cause. Although a trait of his oratory had got abroad surreptitiously, he never suffered any of his pleadings to be published; alleging that whenever it would have been better that any thing had not been said, it might not be proved against him. Cicero, de Oratore, lib. ii. c. 47. &c. Apud Oper. tom. i. p. 254, ed. Olivet.—De Claris Oratoribus, c. 30, 31, &c. Oper. tom. i. p. 416, &c. Pro Cluentio, c. 50. Oper. tom. v. p. 58, Valer. Max. lib. vii. c. 3. Gen. Diet.

ANTONIUS, MUSA, physician to the emperor Augustus. Having had the good fortune to restore the emperor to health, from a tedious and dangerous complaint, which his other physicians had attempted in vain, he was loaded with riches, and was allowed the liberty of wearing a gold ring; a privilege only granted to personages of the first rank. This privilege was afterwards granted to other physicians at Rome, in compliment to Antonius. —The medicines he used in the cure of Augustus are said to have been principally cooling herbs, to which he added the use of the cold bath, at that time but little known. He was skilful, Haller says, in the knowledge of medicine, and many of his compositions continued to be used to a very late period.


ANTUNE, in Geography, a town of France, in the department of the Dordogne, and chief place of a canton, in the district of Perigueux, on the Ille; five miles east of Perigueux.

ANTONOMASIA, compounded of art, for, and eosa, name, a figure in Rhetoric, whereby a noun appellative is used instead of a proper name, or vice versa. Thus we say, the Philosopher, instead of Aristotle; the Orator, for Cicero; the Apostle, for St. Paul; the Prophet,
for Meca, &c.—Thus also we call a voluptuous person, a Sattanapalus, &c. And thus the French say, Henry the Great, meaning Henry IV. of France.

ANTONOW, in Geography, a town of Poland, in the palatinate of Muilk, 16 miles south-south-east of Mozyr.

ANTONY, a town of France, two leagues S. of Paris.

Antony, Mark. Marcus Antonius, the tribunus, in Biography and History, was grandson of the celebrated orator of that name, and son of Antonius, sonnamed Cre- tusus. His mother's name was Julia, of the Cæsarian family, a lady of distinguished merit. He was born in the year before Christ 86, and educated under his mother's direction. But, following the example of his father, he launched out at an early age into the excess of riot and debauchery. His conniving person, lively wit, and inveterate address, recommended him to Cæsar, who encouraged and supported his licentiousness, and involved himself on his account in a debt of 50,000 pounds. On this occasion Cæsar was requested to appease the anger of Cæsar's father; and having prevailed with him to pay his son's debts, he advised him to copius on his for the surrender of all intercourse with Antony. This laid the foundation of an early enmity in Antony to Cæsar, which was increased by his forming intimate connection with the enemies of Rome. He afterwards attached himself to the profligate Clodius; but conceiving a dislike of him, and dreading the termination of the measures he was pursuing, he went to Greece with a view of improving himself in eloquence and the military art. Here he was invited to serve under the proconsul Gabinius, and obtained the command of the cavalry in his expedition into Syria, where he signalized himself by his valour in a complete victory over the Jews, and in his attempts to restore Ptolemy to the throne of Egypt. When Pelusium was taken, Ptolemy ordered the inhabitants to be put to death; but Antony interposed, and by his influence saved their lives. He afterwards performed several glorious actions, by which he gained the reputation of a great general. Upon the breaking out of the civil war, he joined Cæsar's party, and was created augur and tribune of the people; but becoming obnoxious to the senator's, he was driven out of Rome, and sought an asylum in the camp of Cæsar; in Gaul. Having complained, that the tribunes of the people were not permitted to speak freely, and that those who appeared in favour of equitable measures were in danger of losing their lives, Cæsar marched immediately into Italy; and on this account Antony was as considered as the promoter of the civil war among the Romans. When Cæsar had made himself master of Rome, he appointed to Antony the government of Italy and the supreme command of the army, which attachment he engaged, whilst he incurred the charge of oppressing the people. Such was the reputation he acquired by the effectual alliance which he gave to Cæsar, that he was appointed to the command of the left wing in the battle of Pharsalia, whilst Cæsar himself led the right. When Cæsar, after the victory over Pompey, was made dictator, Antony was appointed general of the horde, which office he retained for a whole year, though the usual period of it was only six months. In the exercise of this office he was tyrannical and intolerant; and his general conduct was so dissolute and licentious, that Cæsar treated him with coldness, and did not admit him to be his colleague in the consulship at this time; as he died two years after, in the year before Christ 44, when he himself was consul the fifth time. His restoration to favour was the remission of the most profligate adulation and servility, and his conduct in office was so base as to accelerate the fall of his patron. At the festival of the Lupercalia, he thrice tempted Cæsar with the offer of a regal diadem, which was so often refused by Cæsar, to the great satisfaction of the multitude. This attempt at royalty was soon attended by the conspiracy which deprived Cæsar of his life. Antony escaped by the interposition of Brutus; and afterwards contrived, by his art and eloquence, to procure a confirmation of Cæsar's acts, and to oblige the conspirators to fly from Rome. The government of Antony, after Cæsar's death, was for some time absolute; and he seemed to aspire to the sovereign power which Cæsar had proscribed. His contemptuous treatment of Octavius, the heir of Cæsar, however, threw him into the arms of the Senate, and defeated his own ambitious projects. Having failed in his various attempts for regaining him, Antony levied forces and retired to Ciliceine Gaul, of which he had been appointed governor, and laid siege to Mutina, now Modena, which was occupied by Decimus Brutus. For this conduct he was declared a public enemy; and the two confuls, Hortius and Pansa, accompanied by Octavius, were sent against him. In the battle which ensued, the two confuls lost their lives, but Antony was defeated, and the whole republican army was at the disposal of Octavius. Antony was compelled to leave Italy, and to march his troops over the Alps, which he conducted with a fortitude that did him honour. Having arrived in Gaul, he attached the soldiers of Lepidus to his interest; and they induced Lepidus to join him. Strengthened also by the troops of Plancus and Pollio, he returned to Italy with a large army. At Bologna, Antony and Lepidus had an interview with Octavius, who abandoned the Senate; and here they agreed on the partition of the Roman empire. They also concurred in that detestable proscription, of which the first sanguinary measure was the death of Cæro, against whom Antony had conceived an inveterate hatred on account of the condemnation of Lentulus the second husband of his mother, and the Philippi which he had pronounced against himself. The usurpers proceeded to Rome, and filled the city with rapine and murder; and Antony enjoyed the base satisfaction of fixing the head and right hand of the illustrious Roman orator upon the rostra, which had so often witnessed the triumphs of his eloquence.

After having completed the destruction of their enemies in Rome, Antony and Octavius marched into Macedonias, against Brutus and Cassius; the latter of whom, after a defeat at Philippi, put an end to his own life; and, in a second battle, Brutus fell in the same manner. It is recorded, as an instance of generosity on the part of Antony, that when Lucullus, who was mistaken by the Thracians for Brutus, surrendered himself in order to give his friend an opportunity of escaping, Antony commended his fidelity, and embraced him as a friend; and also, on viewing the dead body of Brutus, his sensibility was affected, he threw over it his own rich mantle, and ordered it an honourable funeral. At Athens in Greece, whither Antony next proceeded, he endeavoured to ingratiate himself with that city, by expressions of regard, and he frequented its public schools and gymastia. In Asia, he indulged his taste for splendid and voluptuous pleasures; and, though he frowned some lenity to the friends of Brutus who fell into his hands, he plundered several cities, and bestowed the wealth he thus collected on his parasites and buffoons. In Cilicia he summoned the famous Cleopatra, queen of Egypt, to give an account of her conduct, which had given offence to the triumvir. The interview was singularly splendid; and the queen advanced with confidence, not doubting that, as in her youth she had enslaved Cæsar and Pompey, she would be able, by her charms and the art which experience had taught her, to captivate the heart of Antony. The intercourse terminated as he expected. The triumvir was completely subdued, took the queen with him to Alexandria, and
and indulged in dissipation and luxury, which made him regardless of every important concern. In the mean while, Fulvia, the widow of Clodius, whom Antony had married before the death of Cæsar, quarrelled with Octavius, and assembling some legions at Benevente, commenced hostilities. Before Antony could reach Italy, the war had terminated in favour of Octavius; and the death of Fulvia, who is thought to have concerted this war for the purpose of detaching Antony from Cleopatra, made way for completing a reconciliation with Octavius, by the marriage of Antony with his sister Octavia, to whom the brother was affectionately attached, and who was a lady of an excellent and amiable character. On this occasion, Antony and Octavius, the two principal of the triumvirs, agreed on a new partition of the Roman empire; and by virtue of this partition, Codropolis, a town of Illyricum, being fixed as the boundary of their dominions, the whole that lay west of this place was allotted to Octavius, and the whole that was situated to the east belonged to Antony; so that the former had Dalmatia, the two Gauls, Spain, and Sardinia, and the latter all the eastern provinces as far as the Euphrates. Africa was allotted to Lepidus. It was also agreed that Antony should make war upon the Parthians; and Octavius reduce Pompey, if he refused to submit to reasonable conditions. Antony, after this business was amicably settled, spent the winter at Athens with Octavia, and dispatched his lieutenant Ventidius into Asia, to check the incursions of the Parthians. The successes of Ventidius routed the jealousy of Antony, and he determined to leave Athens and march into the east. When he arrived, he dismissed his lieutenant, who was besieging Samothrace, and went to Rome to demand of the Senate and people the honours of a triumph. Antony, having offended his soldiers by dismissing Ventidius, and raising the fuge without much honour, returned to Octavia at Athens, and soon afterwards failed to Italy, at the request and for the affiance of Octavius, in order to overpower by their united councils and forces their rival, Pompey. Antony came as far as Brundusium; and not finding Octavius there at the time appointed, he returned to Athens. However, when Octavius was reduced by Pompey to great danger, Antony assembled a large fleet, and sailed for Italy. But his two ambitious triumvirs, jealous of each other, disapproved; and Octavia, by a conference with her brother, in the presence of Maceenas and Agrippa, and by earnest entreaties, prevailed with him to meet Antony, and to compromise the differences that subsisted between them. In this office of prudence and affection he succeeded; and after an accommodation, Antony departed once more for Syria. Octavia accompanied him to Coreiya, but from thence returned to Italy. Upon Antony's arrival in Syria, he invited Cleopatra, and bestowed upon her all Phœnicia, Cilicia, Cyprus, and a great part of Arabia and Judea. His profusion offended the Roman people, and they encased his conduct on account of his scandalous connection with Cleopatra. After these extravagant grants, he marched with a large army against the Parthians, which only served to render his retreat the more ignominious. The Romans justly attributed the misfortunes of this fatal expedition to his passion for Cleopatra, and they were also particularly incensed by his conduct towards Artabazus, king of Armenia, whom he slew in a treacherous manner, and led in triumph to Alexandria. Having been induced by the crafty queen to order Octavia not to pursue her journey into Syria, but to return to Rome; he accompanied Cleopatra to Alexandria, and passed the winter with her in every kind of pomp, luxury, and voluptuousness. Octavius availed himself of the general resentment against Antony, and preferred to the senate and people several articles of accusation against him. A war between these two triumvirs became inevitable: but Antony, instead of making necessary preparations, appointed the ides of March for the place of general rendezvous; and summoned thither players and musicians, and all the minstrels of riotous luxury. From Syria he afterwards failed to Athens, where he pursued the same course of luxury and dissipation; and in order to justify his renunciation against Octavius, he solemnly divorced Octavia, and ordered her to be expelled from his house at Rome. Many of his friends abandoned him. War was declared against the Egyptian queen; and Antony was deprived of his confideate and government; and the reason assigned for it was, that he suffered himself to be ruled by a woman. Each party collected its forces; and the Ambazian gulf, between the islands of Coreya and Caphalaonia, became the scene of contest. The famous battle of Actium ensued: and this was fought at sea, against the advice of Antony's best officers, and chiefly through the perusal of Cleopatra, who was proud of her naval force. In the midst of the action, Cleopatra, with her 50 galleys, took to flight, and Antony followed her in a small vessel, and thus overwhelmed his character in perpetual ignominy. After an obdurate refiiance on the part of the soldiers, though abandoned by Antony, and at length by their principal officers, they surrendered to Octavius, and were incorporated in his legions. Antony, thus defeated and disgraced, vented his resentment against Cleopatra; but they were soon reconciled; and he pursu'd his course to Libya, where he had stationed a considerable body of troops: but on his arrival, he found that they had defected to Octavius. Disaffected with disappointment and vexation, he returned to Egypt, and lived for some time in gloomy solitude; but Cleopatra by her arts drew him to her palace, and he refused his former voluptuous life. Hither he was pursued by Octavius: and though on his approach to Alexandria, Antony made a successful sally against the invader; yet, defeated by the Egyptian fleet, by his own army, and betrayed, as he suspected, even by Cleopatra, he sunk down in despair. His first frantic effort was directed against the queen, who had been the cause of all his misfortunes; but the fled from her palace and escaped: he then defied one of his own servants to dispatch him; but the faithful Eros stabbed himself, and fell down at the feet of his master. Antony, emboldened by this act of heroism, fell on his own sword: but as the wound did not immediately prove mortal, he fought Cleopatra in her place of retirement and safety; and being drawn up to the tower in which she lodged, by ropes, he expired in her arms, in the 56th year of his age, and in the year before Christ 30. He was magnificently interred by Cleopatra; but at Rome his remains were desecrated, and his memory was declared infamous.

Antony left seven children by his three wives; two sons by Fulvia; two daughters by Octavia, who by their alliances gave three emperors to Rome; and two sons and a daughter by Cleopatra, whom he had lawfully married after his divorce from Octavia. Of these children Octavia took the most laudable care; and at length the daughter of Cleopatra was married to Juba king of Mauritania.

Antony was neither a great nor a good man: he wanted that vigour of understanding which entitled him to a place in the first class; and his love of pleasure, his want of principle, as well as his menacings and cruelty, exclude him from the second denomination. He has had, however, his partisans and admirers; and, it must be allowed, possessed a generosity of disposition which raised him above his rival, the cold and crafty Octavius. Plutarch in Anton. apud. oper. tom. i. p. 915—957, ed. Franc. Auc. Un. Hist. vol. xi. and vol. xii. Gen. Diet. 3 L 2
ANT

ANTONY, St. the hermit. See Anthony.

ANTONY of Lattavia, or Antonia Nobissiis, a Spanish writer, was born at Lebiva in Andalucia, in 1444, and contributed to the revival of literature in Spain. He first studied at Salamanca; and acquired farther knowledge in the University of Bologna. Besides classics and polee literature, he was acquainted with the mathematics, law, medicine, and theology, and might have been justly clasped among the most learned men of his age. After his return to Spain, he taught grammar at Salamanca for 23 years; and at Alcala, under the patronage of Cardinal Ximenes, he till his death. Here he employed himself in publishing a polygot edition of the Bible. As historigrapher to the king, he published, in 1509, two decades of the history of Ferdinand and Isabella, which are to be found in the work intitled "Hispania Illustrata." His dictionary of the Latin, Greek, and Hebrew languages, was printed at Grenada in 1545. He also wrote notes upon several Latin classics, and upon Aristotle's Rhetoric; a Treatise on Weights and Measures; a cosmography; a law dictionary; a medical dictionary: Commentaries on the Scriptures, &c. He died in 1522. Cave, Hist. Lit. Appendix, vol. ii. p. 209.


ANTONY of Mistina. See Antonello.

ANTONY of Padua, a monk of the order of St. Francis, was born at Lisbon, in 1195. A desire of obtaining the crown of martyrdom induced him to fall for Africa; but being driven on the coast of Italy, he devoted himself in that country to the study of theology, and became an eminent preacher. The fraternity of Flagellants is said to have owed its origin to his sermons. Pope Gregory XI. used to call him "the Ark of the Covenant, and the Depositary of sacred Learning." He was successively a teacher at Montpellier, Toulouse, and Padua; where he died, in 1231, at the age of 36 years. His works, confilting of sermons, commentaries, and a moral concordance to the bible, were published at the Hague, in 1641. Nou. Diet. Hiflor.

ANTONY of Pratoerobio, in Tufcany, was educated at Florence, and distinguished himself in the 15th century, by his attempt to form a new code of feudal law. The emperor Sigismund created him count and counsellor of the empire, and charged him with the execution of this undertaking. The result was a treatise, entitled "A Course of Feudal Law," and published in the year 1428. Although the emperor, under the influence of the lawyers, who envied the reputation of Antony, refused his imperial approbation of this new code, it was afterwards granted by Frederic III. Antony also wrote a "Commentaries on the Decree of Gratian," and a "General Repertory" or Lexicon of Jurisprudence. He died at Bologna about the year 1451. Gen. Biog.

ANTOSIANDRIANS, in Ecclesiastical History, a sect of rigid Lutherans, who oppose the doctrine of Olander, relating to justification. They are otherwise denominated Clandre-monfortes.

The Antosiandrians deny that man is made just, with that justice wherewith God himself is just; that is, they affirm, that he is not made effentially, but only imputationally, just; or, that he is not really made just, but only pronounced so.

ANTTRAIGUE, in Geography, a town of France, in the department of the Ardèche, and chief place of a canton, in the district of Privas, ten miles west of Privas. The place contains 1531 and the canton 7401 inhabitants: the territory includes 1874 kilometres and 8 communes.

ANTRAIN, a town of France, in the department of the Ille and Vilaine, and chief place of a canton, in the district of Fougeres, seven leagues north-north-east of Rennes, and four south-east of Dij. The place contains 1375 and the canton 14,353 inhabitants: the territory includes 222 kilometres and 10 communes.

ANTRIM, a county of Ireland, in the province of Ulster, lying at the north-eastern extremity of the island, and being one of the most respectable in point of culture and population. It is washed on its northern and eastern sides by the north channel, which divides Ireland from Scotland. On the west, Lough Neagh and the river Bann form a natural boundary, except for about five or six miles near the sea. On the south-east, it has a large estuary, called Carrickfergus Bay, or the Lough of Belfast; and on the south lies the county of Down, from which it is partly separated by the river Lagan. Its greatest length from north to south is 44 miles (56 English), and its greatest breadth 21 miles (30 English), containing 387,092 acres (927,050 English), and being about 605 (or 972 English) square miles. The number of houses, according to an official return made to the House of Commons, in 1791, is 30,314, from which we may estimate the population at about 170,000. The number of parishes is 74, of which 42 only have churches, all of them, except one, in the diocese of Down and Connor. This county returns five members to the Imperial parliament; namely, two knights of the shire, and one each for the towns of Carrickfergus, Belfast, and Lisburn. The face of the country, essentially in the northern and eastern parts of it, is very mountainous, and there are several extensive bogs, some of which have been improved, and others are very improvable. There is also a tract of very rough and hillcd on the west of Belfast; of which Mr. Arthur Young observes, that to their farms they confit of exceedingly good loam, and such as might be improved into good meadow. Of the mountains, Devis near Belfast, Slenslth in the middle, and Knocklaid in the northern part of the county, are the most considerable. The richer and more fertile parts of it are well cultivated, producing fine crops, especially the southern extremity, which is in a high state of beauty and improvement. The linen business extends throughout the whole county, in a manner which seems peculiarly favourable to the morals and happiness of the people. The farms are generally very small, and chiefly in the hands of weavers, who make the web at their own houses, and on their own account, and then carry it to the nearest market-town, where it is purchased by the bleacher. They grow their own flax, and generally have a patch of oats, some potatoes, and a cow, which supply them with their usual diet. The rivers of this county are generally small, but very numerous: the principal ones are, the Lower Bann, a broad and rapid stream, by which all the waters of Lough Neagh are discharged into the sea; and the Lagan, which passes by Lisburn, and a little below Belfast flows into Belfast Lough. The northern coast of this county is remarkable for its basaltic pillars, an account of which will be found in the article relating to the Giants' Causeway, where they are most conspicuous. The stupendous promontories of Bencore and Fairhead (the Robegium of Ptolemy), in particular, are in a great measure composed of these pillars. The eait-rn coast has many little bays, on which are villages inhabited by fisher-men. At the south east is a little town called Hill; it was once a bishopric. It has an important representation in the most maps as an island, though connected with the main land by an isthmus of more than a mile broad. The inhabitants of this county had an early period a considerable intercourse with the adjoining parts of Scotland; and some Scotch families settled in it, previously to the encouragement given by James I. The counties of Antrim, of the family of M'Donnell, descended from one of these, has in her possession, according to Mr. Young, 172,000 acres in this
this county, which are let on very long leases for £600 per annum, and relet for £4,000.

At present the greater part of the inhabitants are of Scotch extraction, and most of them continue attached to the Presbyterian form of worship. The places, elections, &c. for the county are held at Carrickfergus, but the quarter sessions is Antrim. Dr. Basset's Memoir; Mr. Young's Travels in Ireland; Dr. Hamilton's Letters respecting the Coast of Antrim.

Antrim, a town in the county of the same name in Ireland, pleasantly situate on a small stream, called the Sixmile-Water, which a little below the town empties itself into the north-eastern extremity of Lough Neagh. This was a populous, thriving place, but was injured some years ago by the desire of the proprietor to increase his influence in the election of members of parliament. It still partakes the benefits of the linen manufacture; and the fine-yard-wides are chiefly bleached and finished in the neighbourhood of this town, Lisburn, and Belfast. Amongst the different minstrels of this town were Mr. Abernethy and Dr. D'Udall, so well known by their writings, both of whom afterwards removed to Dublin; and from that prebendarry took its name, which still bore the name of the pope's patron saint, as will be seen when the church is visited. The town is a great mart of Italy, and is noted for the beauty of its streets.

Antrim, or Antrim, a township of Hillsborough county, New Jersey, in America, having 548 inhabitants, incorporated in 1777, 75 miles well from Portmouth, and as many north-west from Boston.

Antrodoco, a small town of Italy, in the kingdom of Naples, situate in Abruzzo, on the small river Velino, between Aquila and Rieti.

Antron, in Ancient Geography, a town of Greece, in that part of Thessaly, called Phthiotis, situate at the entrance of the Pelaic gulf. It was famous for furnishing apes of a large size. This town existed in the time of the Romans; and in the war against Perseus, the confidant Licinius, in the year before Christ 171, obtained it by treachery.

Antros, a small island of France, on the mouth of the Garonne, where was erected the tower of Cordova, which served as a light-house to vessels that entered this river, in passing to Bordeaux.

Antrum Genuen, in Anatomy, a large cavity in the bone of the upper jaw, which communicates with the nostrils. It was thus called by Caffierius, but by Dr. Highmore antrum maxillare superiorum. It is also frequently called antrum Highmoraniun. For a further account of this cavity, see the description of the superior maxillary-bone.

Antrum Pylorico, a term which has been employed to express the concavity in the great curvature of the stomach, as it approaches the pylorus.

Antrum Maxillare, in Surgery. The cavity of the cheek bone is liable to inflammation and abscesses. The bone itself may become cavernous, and be followed with very alarming consequences. Infections will sometimes be generated within this sinus, and produce the most excruciating pain for years together.

We have already had occasion to notice the treatment of abscesses in the maxillary sinus, to which we therefore leave our readers. See Abscess, Inflammation, Caries, and Diseases of the Teeth.

Antrim, in Geography, a mountain of Switzerland, in the Valais, which is a part of the Alps, that may be passed from the Valais into the Milanese.


Antuly, in Geography, a town of France, in the department of the Maine and Loire, and chief place of a canton in the district of Autun, five miles south-east of Autun.

Antwerp, or Antwerp, in French Antoerz and in Spanish Antwerp, the capital of a marquisate in Brabant, called the Marquisate of Antwerp, and also the Marquisate of the Holy Roman Empire; situate in a large plan on the eastern side of the Scheld, which is sufficiently deep and wide for admitting vessels of great burthen to the quay; and vessels may be brought by means of canals cut through the town to unload at the doors of the warehouses. It ranks the third city in Brabant; it is large and well built, and contains 22 squares, and more than 200 streets, which are straight and broad; and one of them, called the Merc, is so wide, that six carriages may pass abreast. At the head of this street a crucifix of brass 33 feet high. The cathedral church is a beautiful and elegant building; but in the course of the late war it was robbed of its richest ornaments, or the pictures of Rubens, which are now placed in the Louvre gallery at Paris. The Stadthouer and the Exchange are also magnificent structures. The latter built in 1561, is the first building of that kind in Europe, and on the model of this were built the exchanges of London and Amsterdam. Its pillars are of blue marble, and carved, but every one of them in a different style. Antwerp, towards the end of the 15th century, when the commerce of Bruges declined, and the English fixed their staple in it, became one of the most celebrated trading towns that ever existed. There were two circumstances in particular, that contributed to the great increase of its commerce and riches; one was the grant of free fairs for commerce, two of which lasted six weeks, and latter merchants resorted from all parts of Christendom, with their merchandise, custom free; and at these fairs great concerns were managed, not only in merchandise, but in bills of exchange with all parts of Europe; the other was, Portugal's bringing over in immense quantities, the rich produce of India, first to Lisbon, and thence to Antwerp, as to a kind of half-way port between the northern and southern parts of Europe. This drew the German and other merchants to settle at Antwerp; and after the archduke Maximilian had, about the year 1499, brought Bruges into subjection, the merchants of that city removed to Antwerp. In 1543, it was enlarged for the third and last time, and encompassed with new walls, built of fine hewn stone, and beautifully adorned. At this time it contained, according to the computation of Guiccardin, 150,000 inhabitants. When the emperor Charles V. wished to introduce the inferior tribunal of the inquisition into this city, about the year 1550, he was awed by the information, that the English merchants would leave the city and country; and this remonstrance proved effectual; for upon inquiry the emperor found, that the English merchant adventurers maintained or employed at least about 10,000 persons in Antwerp alone, besides 30,000 more in other parts of the Netherlands. At this time this city, and Hamburgh, possessed the principal commerce of the northern and middle parts of Europe; but after the Union of the seven United Provinces, in 1579, the commerce of Antwerp began to decline; and this misfortune was accelerated by the perfecution of the duke d'Alva, and the rack of the town by the duke of Parma, in
ANVAT, in Ancient Geography, a town in the island of Taphrodon, according to Ptolemy.

ANUBINGARA, a town also in the same island.

ANUBIS, in Mythology, a deity worshipped among the Egyptians, the Greeks, and the Romans. Ovid mentions this deity, when he says to Isis, (Amor. lib. ii. cleg. 13.)—

"Per tua ultra precor, per Anubidis ora verenda."

The head of this deity was that of a dog, and in Egypt especially he was regarded as the faithful companion of Osiris and Isis, and received divine honours. Temples and priests were consecrated to him; and his image was borne in all religious ceremonies. His temples were denominated Anu-bida. This kind of worship seems to have commenced in Egypt, by consecrating an animal to Anubis, as was the custom with regard to other deities. Soon afterwards they substitutted the figure of a dog for that of Anubis himself, and then annexed the head of this animal to a human body, as an emblem of the new deity. Thus he is represented in the ruins of the ancient temples of Egypt, as well as on bronzes and marbles in the collections of antiques. Diodorus Siculus (lib. i.) says also, that the god called Anubis is represented with the head of a dog. Virgil, Ovid, Lucretius, first of the ancient writers, represent him thus. They had a temple of him, and performed sacrifices and other religious ceremonies in his honour. The priestesses of Anubis were called Aneidiae. Virgil (Aen. lib. vii. v. 462) pronounces him "Barker Anubis." Cypopolis, the present Minieh, situated in the lower Thebais, was built in honour of Anubis. The priests celebrated his festivals with great pomp, and consecrated the dog to him, as a living representation of him. This city of dogs, says Strabo, (lib. xvii. p. 1116) is the capital of the Cypopolitan prefecture. These animals are fed there with sacred aliments, and religion has decreed them a worship. The medals of this city bear upon them the figure of a man with a dog's head. But though Cypopolis was the centre of the worship of Anubis, the whole of Egypt adopted it; and to this purpose Juvenal says, Sat. xx. v. 8.—

"Oppid a tota canem venerantur."

From the universality of the worship of this deity proceeded the respect which the Egyptians manifested for dogs. This strange worship, however, was not confined to the banks of the Nile. The Greeks adopted it not only in the time when the Ptolemies blended the worship of their country with that of their new subjects, but in the more remote periods of the Greek history. When Rome had adopted the ceremonies of Egypt, the emperor Commodus, in celebrating the festival of Arsac, sacrificed a dog, and carried the god Anubis. His statue was of marble or gilt, and presented as the attributes which accompanied it. Even the name of Anubis, derived according to Jablonski (Pantheon Egypt.) from ab, gold, and annub, gift, signifies gilded.

But what was the significance of this emblematical deity? What is the natural meaning concealed under it? Plutarch, in his Treatise of Isis and Osiris (Opere. tom. ii. p. 358), explains this. "The circle which touches and separates the two hemispheres, receiving the name of horizon, is called Anubis. He is represented under the form of a dog, because that animal watches and night." St. Clement of Alexandria, well informed concerning the mystic theology of the Egyptians, favours this explanation. The two dogs, says he, (Strom. v. tom. ii. p. 671), the two Anubis are the symbols of two hemispheres, which enquire into the terrestrial globe. He adds in another place; others pretend, that
that these animals, the faithful guardians of men, indicate the tropics, which guard the fun on the north and the south, like porters. According to the former of these interpretations, the prieëls, regarding Anubis as the horizon, gilded his stature, to denote that this circle, receiving the first rays of the sun, appears sparkling with brightness on his rising; and that at his setting he reflects his last rays upon the earth. In their sacred fables they said, that Anubis was the illegitimate son of Osiris. In fact, he only gives to the earth a borrowed light, and never can be esteemed like Horns, as the father of the day, or as the legitimate offspring of Osiris. We may add, that the visible horizon turning with the fun, is his inseparable companion. According to the latter explication, which makes Anubis to represent the tropics, he is also the faithful guardian of Isis and Osiris. In reality, the course of the fun and of the moon is contained between the circles in which the solstices occur, without deviating from them. These limits assigned by the author of nature, might therefore, in hieroglyphic language, be represented by a divinity with the head of a dog, who seemed to oppose himself on the side of the sun. The other opinion, however, seems to be more natural, and more analogous to the ideas of the prieëls. Upon the whole it is not unreasonable to imagine, that Anubis was, at first, only a symbolical image, invented by astronomers, to convey a sufficiently expressive of their discoveries; that afterwards the people, accustomed to see it in their temples, which were the depositories of science, adored it as a deity; and that the prieëls favored their ignorance by connecting it with their religion. The worship of Anubis introduced that of the dog, which became his emblem. Almost all the gods of the Gentiles have originated in this manner. Before the invention of writing, men made use of hieroglyphics or imitative figures to convey their ideas; those hieroglyphics remained in their sanctuaries, and the prieëls alone preferred the knowledge of them. In the end, these allegorical signs no longer represented the real meaning of things to vulgar understandings, but the external forms and figures only, which became the objects of superstition. Savary's Letters, vol. ii. p. 488—495.

Siris or Osiris (says Bruce, Travels into Abyssinia, vol. i. p. 413.) was not the fun, but Syrius or the dog-star, represented under the figure of a dog, because of the warning he gave to Atbara, where the first observations were made at his heliacal rising, or his disengaging himself from the rays of the sun, so as to be visible to the naked eye. He was the "Ladatvor Anubis;" and his first appearance was figuratively compared to the barking of a dog by the warning it gave to prepare for the approaching inundation of the Nile. This, he thinks, was the first hieroglyphic; and Isis, Osiris, and Tut, were subsequent inventions relating to it. In this opinion he is confirmed by confiding, that in the city of Axum, once a large city, there is not any other hieroglyphic besides that of the dog-star.

At Rome they had many statues of Anubis, the principal of which are two in the Villa Albani, and one in the Barbarini palace. Anubis is frequently represented in pictures, &c. with a dog's head, holding in one hand a branch of palm, and in the other a caduceum, or Mercury's wand. Anubus, in Entomology, a species of sphinx that inhabits Surinam, and is figured by Cramer. The anterior wings are sub-ferocious, posterior wings black with a row of whirly spots. Fabricius. A black spot in the middle, and a large brown spot with a few streaks near the margin of the posterior wings.

Anuchtia, in Ancient Geography, a town of Asia, in Sufiana, according to Ptolemy.

Anvers, D' Henry, earl of Danby, in Biography, is here introduced, as being founder of the botanic garden at Oxford. In the year 1022, he purchased five acres of land in the vicinities of Oxford, which he took care to flock with numerous foreign as well as indigenous plants; and having erected hot-houses and other necessary buildings, gave it to the university in 1651. He also endowed it with an annual rental, for the support of a gardener and proper assistants; and of a botanical professor, to teach the science to the students of the university. Dr. Sherard augmented the estate of the garden, by a donation of 500l., to enable the curators to enlarge the conservatory, and present them with a large number of exotic plants, and a handsome collection of books on the subject of botany.

Anversa, in Geography, a town of Italy in Naples, five miles well of Solomiao.

Anui Bolsche, a river of Siberia, which runs into the Kolima, eight leagues call of Niznie Noviimskoi.

Anui Schos, a river of Siberia, which runs into the Kolima, nine leagues call of Niznie Noviimskoi.

Anvil, a smith's utensil, serving to place the work on, to be hammer'd or forged.

The face, or uppermost surface of the anvil must be very flat and smooth, without flaws; and so hard, that a file will not touch it. At one end there is sometimes a pike, bickern, or beak-iron, for the rounding of hollow work. The whole is usually mounted on a firm wooden block.

Forged anvils are better than those of cast work; and the hollow have the upper part made of steel. Locksmiths have a smaller kind of anvil, called the flake, which is moveable, and placed ordinarily on their work bench. Its use is for setting small cold work straight, or to cut or punch on with the cold chisel or cold punch.

Anvil Island, in Geography, an island of the Pacific Ocean, on the north-west coast of America, so called from the shape of the mountain that composes it, and lying in N. lat. 40° 30'. W. long. 237° 3'.

Anville, Jean Baptiste Bourguignon d', in Biography, geographer to the king of France, and adjutageographer to the Academy of Sciences, was born at Paris, July the 11th, 1697. D'Anville possest a peculiar talent and disposition for geographical researches; and the principal part of his time was devoted to this kind of employment. Accordingly he collected, from the paraphernal of ancient and modern authors of various descriptions, such as geographers, historians, travellers, and even poets, materials for his main purpose, which was, the construction of charts, and the accurate adjustment of the situation of different places. At the age of 22, he began to publish some of those charts which have given celebrity to his name. To every chart of importance he annexed an account of the authorities upon which he depended, and of the means by which he obtained necessary information; and this he did not with selfish views, or for the purposes of ostentation, but from a conscientiousness of the difficulty and extent of his inquiries, and in order to enable others to form a competent judgment for themselves. The successes of his investigations, and the reputation he acquired, were owing partly to the natural vigour of his mind, and perhaps principally to his indefatigable study; for he is said to have devoted, for 50 years of his life, 15 hours of every day to study. To this recluse mode of life it was probably owing, that though he was cheerful, modest, and unassuming, his decisions on the peculiar objects of his study were more positive and dogmatical than they would have been if he had accustomed himself more to the society and conversation of literary men. In the year 1773, the Academy of Sciences appointed him adju-
When the surgeon wishes to promote the formation of an artificial anus, he must first carefully examine which is the superior portion of the intelleine: and this he may, in general, know, by observing through which the excrements are discharged. However, as this is not always a certain mark of distinction, he may let the patient swallow a few spoonfuls of oil, after which he might distinguish the superior portion of the intelleine with certainty, by observing from whence the oily discharge proceeds. Through this end of the intelleine he then pales a thread, which he falls with adhesive plaster to the external skin, in order that it may not be drawn back into the cavity of the abdomen. This operation, however, is not often necessary, as both ends of the intelleine generally adhere within and behind the abdominal ring. The lower portion of the intelleine must then be cleared by glyclers and purgative injections; and it may be suffered to lie in the wound, in order to avoid the inconveniences which might arise from returning it into the abdominal cavity. At the end of the cure, a plug of sponge should be introduced into the upper orifice, to prevent its contracting, and occadiong an impediment to the discharge of the faces.

With respect to the formation of an artificial anus, however, the most rational practice is to leave the whole to nature. The surgeon, in general, has done all that he can when he has opened the gangrenous hernia, separated the gangrenous portion, and evacuated the excrements from the intelleines; after which nature either re-unites the intelleine, or does not re-unite it, in which case an artificial anus is formed, with regard to which the surgeon has nothing to do besides what has already been mentioned. If the surgeon wishes from the very first to form an artificial anus, he should immediately introduce pledgets into the superiour extremity of the intelleine, whereby the reunion of the two ends will be prevented.

His next business must be to endeavour to obviate the inconveniences arising from the involuntary discharge of the excrements through an unusual passage, and to keep the parts clean. For receiving the matter discharged, he may choose a receptacle of horn or strong leather to the body by means of a strap, in such a manner that its orifice falls upon the artificial anus. Dr. Richter (Abhandlung von der Bruchen. neue Aufg. Gottingen, 1785, page 458.) proposes, for the same purpose, an elastic rupture-bandage, having a piece of sponge fastened under its head, which covers and closes the artificial anus in such a manner as to prevent both the access of the air and the discharge of the faces; and to supply the place of a sphincter, without either irritating or rubbing the orifice. Whenever the patient wishes to discharge either faces or wind, he must take it off.

M. LOELEF (Archiv. der praktischen Arzneykunst, &c.)
ANU

&c. Leipzig. 1785. b. i. p. 115.), however, has found the use of this bandage to be attended with some inconveniences, which, he thinks, may be avoided by one of a different construction. In the pelotte of the bandage he directed a hole to be made, an inch in diameter, and a varnished leathern receptacle to be adapted to its outer margin.

As the sphincter is wanting, a prolapsus of the intestine may more easily be produced through an artificial anus than through the natural one. Such a prolapsed intestine may sometimes be easily reduced with the hand; sometimes it is reduced spontaneously, merely by the patient lying down upon his back. When this is not the case, the patient should constantly lie on his back, every exertion of the body should be carefully avoided, and gentle pressure permanently applied, by which means the protrusion will generally be effected in a longer or shorter space of time: force ought never to be applied, as by too hastily and forcible reduction of the intestine the lice afflication might easily be excited. A prolapsus of the lower portion of the intestine is in general far more difficult to be reduced than that of the upper portion; and frequently it cannot be reduced at all, the intestine being contracted, or even entirely closed, behind the prolapsed part. Such hernia ought never to be suffered to attain too large a size, as in that case it may become impossible to reduce them; they may particularly also prevent the discharge of the excrements, and occasion the death of the patient. By using an elastic bandage, the head of which is provided on its inner side with a sponge, which covers and gently compresses the artificial anus, both the production of such a prolapsus, and its recurrence after having been reduced, may be prevented. Mr. Lange (Schmuckers vermittelte chirurgische Schriften, &c. b. ii. p. 298.) has shown that such a hernia may actually become strangulated. He mentions an instance in which the intestine hung down a foot in length, and was so turgid with blood, that it was impossible to reduce it. He was, therefore, obliged to enlarge the artificial anus and abdominal ring by an incision, after which the reduction was easily performed.

It is always a dubious undertaking to attempt to close up an artificial anus of a pretty long standing, and render the discharge of the excrements by the natural passage. However, when still some part of the excrements is discharged by the natural anus, when clocks can be thrown in by that passage, especially when the artificial anus is of no long standing, and we can be assured that the lower portion of the intestine is still open, we may make the attempt to close the artificial anus. That even where the artificial anus is already of long standing, the cure is still possible, has been proved by a case related by Mr. Deuffalt. The disease had already continued for the space of four years, the intestine was protruded out of the body, in the form of a cylinder, nine inches in length; and its membranes were so much thickened and hardened, that it appeared more than tenuity to attempt the reduction of so considerable a mias.

The patient had discharged nothing from the rectum since he had received his wound; every two or three months, however, he had a flux, by which he voided a whitish hard sell of substance. Mr. Deuffalt applied a simple bandage over the whole tumor from the top to the bottom, in such a manner that the turns of the bandage applied close over each other, leaving only a small opening at the point, for the purpose of discharging the feculent matter, which consisted of half-digested aliment. When by this means the intestine had been restored to its natural size, on the fourth day, he directed it to be raised up into a perpendicular direction; and having introduced his finger into the orifice of the intestine, whilst he pressed the intestine itself with his other hand, in order to prevent the protrusion of the parts, he extricated the intestine, so that it now contracted into itself, and consequently the hernia was reduced. The orifice of the intestine, through which the excrements were voided, was closed by means of a plug three inches long, and made of a piece of linen rolled up, which was introduced into the orifice, and secured by means of the common inguinal bandage. His intention with this plug was, that it should be withdrawn twice a day, in order to afford a passage to the faces; but soon after the reduction of the intestine, flatus were several times discharged through the anus; and soon afterwards fluids; which, in the course of the following days, acquired more confidence, so that on the eighth day the plug was no longer used, but the external orifice merely covered and secured with pluggs of lint, compresses, and the elevation of an elastic bandage: by this means the discharge of the excrements through the preternatural orifice was prevented, and its natural passage by the rectum permanently re-established.

But, in general, the attempt to close up an artificial anus is not unattended with difficulty and danger; and it ought never to be risked, unless when the vicinity of the orifice to the stomach gives rise to inanition, or a consumption, or some other material inconvenience. But even in these circumstances, Prof. Richter thinks we ought to use gentler means of alleviating the symptoms, and with a view to the cure. He recommends to keep the orifice of the artificial anus constantly closed, by means of the bandage above mentioned, whereby the chylous fluids will be detained longer in the alimentary canal, and a greater absorption of the nutritive parts take place; to let the patient take only easily digestible, very nourishing, and fluid aliments; and to avoid whatever might tend to accelerate the passage of the aliments through the intestinal canal. By these means he thinks that the above mentioned inconveniences may generally be remedied.

ANUS, in Botany, denotes the posterior opening of a monopetalous flower.

ANUS, in Conchology, a species of Murex in the order of Telescopium Verum, having a velvety shell with membranaceous dilated lips, gibbous reticulate-tuberculate aperture, sinuous and erect as the end. It is the auris hirta of Rumph. Mus. t. 24; found in the Mediterranean, and the ocean contiguous to the southern part of Asia; the shell is about three inches long, for the most part brown, with white bands, and an almost triangular aperture. Gmelin.

ANWEILLER, in Geography, a town situate in the duchy of Deux Ponts, ceded to France by the treaty of Wellphalia; eight miles west of Landau. It is the chief place of a canton in the district of Deux Ponts, and department of Mont-Tonnerre: the place contains 1,841, and the canton 12,690, inhabitants; the territory includes 24 communes.

ANXA, in Ancient Geography, the name given by the Romans to Callipolis.

ANXANUM, Lanciano, or Anciano, a considerable town of Italy, which was the capital of the people called Frentani. It was situate in Latium, near the mouth of the Sagrus.

ANXI, in Geography, a town of Italy, in the kingdom of Naples, and province of Basilicata, eight miles south-east of Potenza.

ANXUR, in Ancient Geography, a town of the Volsci, called by the Greeks and Latins Taracina, situate at the lower extremity of a small gulf to the east of the Circene promontory. In allusion to its situation on a mountain,
AOR

Martial calls it "superbus Aurox." Jupiter αυρως, or the beardless Jupiter, was worshipped in this town; and at the distance of three miles from it there was a grove and waters consecrated to the goddess Feronia, mentioned by Horace, lib. i. fast. 3.

ANYM, a town of Palatine, placed by Joshua in the tribe of Judah; and supported by Calmet to be the same with Anam or Anem.

ANZABAS, a river of Aes, which, according to Ammianus Marcellinus, was not far from the Tigris.

ANZA, in Geography, a river of Italy, which runs into the Tola near Urgugna, in the principality of Piedmont.

ANZAR, a town of Tusquellia, in the vicinity of the northern part of China, where Tamaraeus died.

ANZERMA, a town and province of Popayan in South America, situate on the river Coca, and having mines of gold. N. lat. 4° 58'.

ANZIKO. See ANZIKO.

ANZITA, in Ancient Geography, a town of Aes, situate on a small river, near the city of the Ephorates.

ANZQUI, in Geography, a town of Japan, in the island of Honshu, upon the eastern side of the gulf of Mazzu.

ANZQUIAMY, a town of the kingdom of Mine: the territory to which was the paradise of Nubumanga, who went from the sovereignty of Mine to that of Japan.

AOAYS, a town of Spain, in Navarre, on the river Yrare, seven leagues from Pampluna.

AOBRIGA, or Aobrica, in Ancient Geography, a town of Spain, called also Aobricia and Abobriga.

AOCHARA, a town of Africa, in the kingdom of Algiers, between Tenez and Serelles.

AOE, or AONIUS, in Ancient Geography, a people of Bceotia, who joined with the Hyantes succeeded the Eetecens. At the arrival of Cadmus, according to Pausanius (in Bceot. c. 5.), the Hyantes took up arms to oppose him; but the Aonians submitted, and were afterwards incorporated with the Phocians. The Aonians derived their name from Aonia.

AONIA, an ancient name given to Bceotia.

AONIDES, in Mythology, the appellation of the Miles, derived from the mountains of Bceotia, where they were particularly honoured, called the Aonian mountains.

AONIS, in Entomology, a species of Papilio (Nymp. Gem.) found in India. The wings are angulated, grey, anterior pair clouded with yellow: a large and small eye-shaped spot above. Cranmer, Gmelin, &c.

AORASIA, formed of α, priv. and αυρας. I see, denotes invisibility, and was applied by the ancients to the gods; for they apprehended that, in their intercourse with men, they never shewed themselves face to face, but were distinguished, as they retired, by their backs. Thus Neptune, as Homer represents him (Od. ii.), assumed the form of Calchas in conversing with the two Ajaxes, and was known merely as he withdrew by his majestick gait and step. Venus also, according to Virgil, appeared to Aneas under the form of an huntef; but the discovered herself in her retreat by her radiant head, flowing robe, and dignified movement.

AORISTIA, in the Sceptic Philosophy, denotes that state of the mind, in which we neither affect nor deny any thing positively, but only speak of things as seeming or appearing to us in such a manner.

The aorist is one of the great points or terms of scepticism, to which the philosophers of that denomination had continual recourse by way of explication or subterfuge. Their adversaries, the dogmatists, charged them with dogmatizing, and affecting the principles and positions of their sect to be true and certain.

AORISTUS, compounded of α, privative, and ἄοριστος, to limit, in the Greek Grammar, an indefinite and indeterminate kind of tense, which sometimes expresses the present, sometimes the future, but most frequently the past time.

The Greeks have two aorists; the Latins have none.

Dr. Beattie, in his "Theory of Language," (Part ii. ch. 22), giving an account of the Greek tenses, omits the second aorist as well as the second future; because he considers them as unnecessary. Some grammarians, he says, are of opinion, that the first aorist signifies time past in general, and the second, indefinite time past; and that the second future denotes a nearer, and the second a more remote futurity. But this he apprehends to be mere conjecture, unsupported by proofs, and he inclines rather to the sentiments of those who teach, that the second future and second aorist have no meaning different from the first future and first aorist; and that they are the present and imperfect of some obsolete theme of the verb; and, when the other theme came into use, were retained for the sake of variety, or, by accident, with a pretcrite and future significatiori. In this opinion Lord Monboddo concurs; and he has endeavoured to strengthen it by the testimony of some ancient grammarians. Dr. Browne, in his "Brief Structure of certain Observations of Lord Monboddo respecting the Greek Tenses" (See Transactions of the Royal Irish Academy for 1789), or vol. iii. part ii. p. 11, &c., has controverted this opinion. Aorists, or indefinites, he observes, are sometimes called, because they are used for many tenses indifferently, past, presents, and futures; sometimes, because they do not mark any precise point of time when an action happened, but only express that it did happen; sometimes, because the verb, when used in these tenses, do not express whether the action signified be perfected or imperfect. In this last sense he uses the term aorist; and by definite, he means the tense in which the verb expresses the perfection of the action. Having thus defined the meaning which he annexes to the term aorist, he allows that both the aorists are often used, without discrimination, as mere past imperfects; but he maintains, that the first aorist has much more frequently a definite meaning than the second; whereas the second appears in nine instances out of ten to be used indefinitely. Grammarians have observed, that the first aorist is often introduced to denote the past perfect time, than their preterperfect tense itself; and hence he argues, that its proper meaning is of a definite nature, and that it is not properly an aorist. Such, he argues, seems to have been of this opinion, when he calls the second only by the name of aorist. He then proceeds to show, that such a definite, as he conceives the first aorist to be, was wanting in the Greek language, and is not supplied by the preterperfect; which implies, that the action has been done, and still continues to be done. In the Greek language there must be some other tense for expressing the time of the performance of an action which was perfected at a time past, and has ceased to continue. Dr. Clarke has assigned to this office the tense usually called the preterperfect; but in Dr. Browne's opinion, without sufficiently it authority, as that tense expresses something more. He has recours, therefore, for this purpose, to the first aorist, the original intention of which was to express the real preterperfect time of philosophical grammar. In the Latin and English languages we have no diversity of tenses, or of single words, to express whether a past action has been done lately, or a long time since. It is only from the tone of the speaker, from the circumstances of the event, or from the context, that we can find out the difference. To supply the defect which these languages labour under, in their à la voix, in not distinguishing, by different
different sounds or words, the difference between what was 
later perfected, and that which was perfected some time 
ago; and in the _p옼_ , in not making this distinction 
except by the help of auxiliary verbs; the Greeks, according 
to Dr. Browne, invented their first aorist; and intended 
by it to indicate the latter, as the pretender indicated the 
former. When Archimedes rushes out of the bath, after 
having made his celebrated discovery, he exclaims ἵππαξ, 
because he had just at that moment found out and solved 
the difficulty. But when Nelfor (Homer II. i. v. 260, 261.) 
speaks of ancient days and ancient heroes with whom he 
had been conversant, he speaks in the aorist, ἔρμην ἔμε 
θεος ἅπατο ἀποκαλάκα. When Demosthenes supposes the 
question πότε ἤρατα; it follows, that if it had been so, 
and any person had suddenly announced it, he would have 
replied ἄρα. But when Chrysis (II. i. v. 40) alludes to 
actions formerly and frequently performed by him, he uses 
the aorist, "if I have ever crowned your altars or burnt 
victims," ἢπατα οἴκους καὶ ἀποκρατήσσας ἦσαν. 

Moreover, the probability that the Greek language had 
a distinct tense to denote what had lately, or what had 
long since happened, is augmented by the consideration that 
they had a tense to express what was soon to come. As 
they had a "passo-poll future," they might also have had a 
"paolo ante preterit." 

If an action be spoken of which has been often done, 
the Greeks generally use the first aorist. Thus, in the 
beginning of the "Cyropedia," where Xenophon reflects 
how many democracies have been reduced, and how many 
oligarchies subverted, he often speaks of how he 
expresses the first aorist: thus also he expresses, in 
the beginning of the "Memorabilia," his frequent surprise 
at the errors respecting Socrates; "I have often 
heard," in the first aorist. This is also the case in the 
example of Nelfor above mentioned; and in similes, where 
a comparison is made with something frequently occurring, 
the first aorist is generally used. In such cases, no particular 
time at which the action happened is specified, but an action 
which has often passed is mentioned, without determining 
any precise time. The second aorist, on the other hand, 
which generally refers to a particular time, is seldom if ever 
used to denote a frequentative; although lord Monboddo 
has alligned this usage to this as well as to the first aorist.

To close this article, we may observe, that definite tenses 
are thoe which limit both the times of the peron and of 
the action; whereas those tenses which leave the nature of 
the action wholly undecided, and take no notice whether it 
be finished or unfinished, are indefinite, or aorists; e. g. "I 
write," is the aorist of the present tense, "I wrote," is the 
aorist of the past tense; and "I shall write," is the aorist of the 
future tense.

AORNS, in _Ancient Geography_, a town of Bactria, 
situate to the south of Bactra.

AORNS was also a place of Epirus, according to Phiny; 
belonging to the Threpetisa, according to Pausanias; whence 
the name was given to the high mountain of 
that was fatal to birds which flew over it; and where, it is said, they invoked the dead to predict 
future events. In this place were a temple and grove confe- 
crated to the Muses.

AORNS. Rock of, a name given to a high mountain of 
India, situata in the modern district of Bijore, and 
driving its name from a, priv. and apo. bird, expressing its 
great elevation, which was suffopd to be above the flight of 
a bird. The circuit of it, according to Arrian, 200 
flada or about 18 or 20 miles; its height about 11 for 
longs; and the access to it was only by one narrow path, 
cut out of the rock. On the summit was a great extent of 
ambles and pasture land, with springs of water; so that a 
garrison of 1000 men might subist, without any extravagant 
supply. It may be supposed to be somewhat similar to 
Gwaler, or Rotas Gur, in Bahar. Some have laid, that 
the Indus passed by Aorns; but this, says Mr. Pennell 
(Memor. &c. p. 174.), could not be the case; because the 
district of Sowdad Proper lies between the Indus and Bi- 
lore, according to the Aysen Achebe. The siege and cap- 
ture of this fort were among the most celebrated exploits of 
Alexander in his Indian expedition. Hercules had to 
have attempted it in vain: but Arrian informs us, that this 
was a groundless report; and that it was a fable, probably 
invented by some of Alexander's flatterers to magnify his 
enterprise. Whilst he was preparing for the siege, an old 
man and his two sons, who had long lived in a cavern of 
the mountain, offered to shew him a private way of ascend- 
ing it; and a deputation of light-armed troops, under the 
command of Ptolemy, was sent to accompany them. As 
soon as they were safely lodged, they caused a lighted torch 
to be erected on a pole in their camp, as a signal to Alex- 
ander. Alexander, attempting the ordinary passage with a 
body of troops, was repulsed with great slaughter. But 
Ptolemy attacking the Indians in the rear, whilst Alexander 
renewed the assault, a second repulse took place. Upon this 
Alexander, perceiving that the strength of the Indians de- 
pended on the narrowness and declivity of the passage, gave 
ordeal to fell a quantity of trees, and to fill the cavities 
between the plain on which the Indians were encamped, and 
the highest of his own advanced posts. The measures were 
at first derided by the Indians; but as soon as they began to 
feel the effects of the missile weapons of the Macedonians, 
they proposed terms of surrender. Alexander, suspecting 
that they really wanted to gain time, and to make their 
escape, took the advantage of their defeat; and having 
gained possession of the deserted rock, he then made a 
signal for the forces to fall upon the flying Indians. The 
 fugitives, hearing their loud shout, were so terrified, that 
many of them fell from the rocks and precipices, and were 
dashed to pieces, and the rest were cut off in the roads. 

AORSI, a people who, according to Strabo, inhabited 
the banks of the Tanais. They afterwards extended them- 
selves along the northern parts bordering on the Caspian sea, 
and carried on a commerce in gold and other articles of 
merchandise between India and Babylon.

AORTA, formed of αορτάς, which signifies a _lag. chis_, 
&c., in _Anatomy_, the great artery proceeding from the 
left ventricle of the heart; from which all the other arteries 
either mediately or immediately proceed, and by which 
the whole mass of blood is conveyed to all parts of the 
body.

The structure, divisions, courses and branches of this 
vein, are explained under the article _Artery._

AORTA, _diseases of the_, in _Surgery_. The most common 
local disorders of this vein are, _anguria_, _ossification_, 
or a thickening and opacity of the seminal valves of the 
aorta, interrupting their proper action, and sometimes pro- 
ducing fatal consequences. This artery is likewise subje 
to _inflammation and ulceration_, like other parts of the body; but in all the complaints the art of healing affords 
only palliative means of relief. See _Polyphus_ of the heart 
and blood vessels.

AOUIS, in _Ancient Geography_, a river of the isle of 
Cyprus.

Aou is also a name given to the river Aas near Apol- 
lonia,
ioia, which rose in the south-east, and discharged itself towards the west into the Ionian sea.

AOUSTA, or Aoust, in Geography, formerly Augusta pretoria, a city of Piedmont, situated at the foot of the Alps, on the river Doria, is so called probably from its ancient name, which was given it by Augustus, who sent thither a colony of 5,000 of the Pretorian legion. It is the see of a bishop, has several Roman antiquities, such as a triumphal arch, an amphitheatre, &c., and was the birth-place of Anselm, archbishop of Canterbury. It is distant 25 miles north-west from Ivrea, and 50 north-north-west from Turin; N. lat. 45° 32' E. long. 7° 33'.

AOUST, a district of Piedmont, with the title of a duchy, is a valley about 30 miles long, and fertile in pasturage and fruit; extending from the pals of St. Martin's, near the frontiers of Yvree, to St. Bernard. Its capital is Aouilla, and most of the inhabitants are Goites.

AOUST, a town of France, in the Department of the Drôme, and chief place of a canton in the district of Crest, situate on the Drôme: 15 miles south-east from Valence, and two south-east from Crest.

AOUST, the name of the paper mulberry-tree at Otaheite, in the South Sea, from which a cloth is manufactured that is worn by the principal inhabitants. The bark of the trees is stripped off, and deposited to soak in running water; when it is sufficiently softened, the fibres of the inner coat are carefully separated from the rest of the bark; they are then placed in lengths of about 11 or 12 yards, one by the side of another, till they are about a foot broad; and two or three layers are laid one upon the other. This is done in the evening; and by the next morning the water is drained off, and the several fibres adhere together in one piece. It is afterwards beaten on a smooth piece of wood, with instruments, marked lengthways with fine grooves of different degrees of fineness; and by means of this operation becomes as thin as muslin; and after bleaching it in the air in order to whiten it, it is fit for use. If the cloth breaks in the beating, it is easily repaired by pasting on a patch with a gluten that is prepared from the root of the pes, which is done so nicely that it cannot be discovered. This cloth is cool and soft, but as liable to be rent as paper. The colours with which it is dyed are principally red and yellow. The red is a beautiful scarlet, and produced by mixing the juices of two vegetables, viz. the fruit of the fig called maité, and the leaves of the cordia febathina or etou.

The yellow is made of the bark of the root of the marinda citrifolia called nono, by scraping and infusing it in water. The inhabitants of the island also dye yellow with the fruit of the tamanu. Hawkesworth's Voyages, &c. vol. ii. p. 210, &c.

AOUTOS, in Geography, a town of European Turkey, in the province of Romania, 44 miles west-north-west from Burgas.

AOYCA, a town of Spain, in Navarre, four leagues from St. Elievan, and five from Pampeluna.

APACHES, a people of North America, in New Mexico, who occupy an extensive country under the apppellations of Apaches de Parillo, to the south; Apaches de Xilla and de Navaio, to the north; and Apaches Vaguecos, to the east. They are brave, and resolute, fond of liberty, and the inveterate enemies of tyranny and oppression. Ever since their revolt from the catholic king towards the close of the 17th century, they have been the allies, but not the subjects of the Spaniards.

APACHIERA, an audience and province of New Mexico, whose capital is St. Fe, in N. lat. 36° 30', W. long. 104°.

APACTIS, (Apactus, abdulatus, from Apactus), in Botany, Thunberg, Jap. 11. Schreib. gen. 883. Jaff. 432. Clas. duodecim monogynum. Generic Character: calyx none; corolla four-petalled; petals round in fructa, concave, unequal, two opposite broader; filaments from 16 to 20; style hisp. superior; style one. Essential character: cor. four-petalled; cal. none. Apactis japonica, the only species of this genus, is a tree growing erect, with numerous branches, which are alternate, round, februous, dotted, erect. Leaves alternate, petiolate, ovate, acute, lerrate, entire at the base, nerv'd, smooth, paler underneath, an inch long. Petioles half round; furrowed a quarter of an inch in length. Flowers in racemes, at the ends of the branches; Racemes usually ovate, as they advance becoming more oblong. Peduncae villose-februous.

APADUSIA, from a, and apolda, inscription, denotes ignorance or unskillfulness in what relates to learning and the sciences. Hence also perfons un instructed and illiterate are called apedute. The term apedute was particularly used among the French in the time of Huet; when the men of wit at Paris were divided into two factions, one called by way of reproach apedutes, and the other crufihs.

The apedute are represented by Huet as perfons who finding themselves either incapable or unwilling to undergo a severe course of study, in order to become truly learned, conspire to decry learning, and turn the knowledge of antiquity into ridicule, thus making a merit of their own incapacity.

The apedute, in effect, were the men of pleasure; the crufhi, the men of study.

APAGMA, a term used by some writers, in Surgery, for the thrusting of a bone or other part out of its proper place. But it is more properly used for a fracture of a bone at or near the part whereby it is articulated with another.

APAGGE, from agge and aff, draw, or bear, in the Athenian Law, the carrying of a criminal, taken in the fact, to the magistrate. If the accuser was not able to bring him to the magistrate, it was usual to take the magistrate along with him to the house where the criminal lay concealed, or defended himself.

APAGGE, in Logic. See Abduction.

APAGGE, in Mathematics, is something used to denote a progress or passage from one proposition to another; when the first, having been once demonstrated, is afterwards employed in the proving of others.

APAGOGICAL demonstration, is such as does not prove the thing directly, but shews the impossibility and absurdity which arises from denying it.

Hence it is also called, reducio ad impossibile, or ad absurdum.

APALACHES, or St. Mark's River, in Geography, rises in the country of the Seminole Indians, in East Florida, in N. lat. 31° 30', and runs south-west, through the Apalachy country, into the bay of Apalachy, situate N. lat. 30° W. long. 83° 50', in the gulf of Mexico, about 15 miles below St. Mark's. After a course of about 155 miles, it falls into the bay, near the mouth of Apalachicola river.

APALACHIAN Mountains, sometimes called the Allegany Mountains, pass through the territory of the United States, from the south-west to the north-east. According to the best maps, they commence on the north of Georgia, where they give rise to many rivers that run south to the gulf of Mexico,
Mexico, and to the Tenasses, and others that have their course to the north. The Apalachian chain, from which proceed several collateral ridges, as the Iron, or Bald mountains, the White Oak mountains, and others, extends from thence through the western territory of Virginia, together with its collateral ridges, the breadth of the whole being often 70 miles, and advancing through Pennsylvania, passes Hudson’s river, and afterwards rises to a greater elevation, and seems to terminate in the country of New Brunswick. Accordingly, this chain may extend about 900 geographical miles, which is a length univalled by any European mountains, except the Norwegian Alps. The collateral ridges are singularly distinct; and a naturalist would at once pronounce that the central or highest must be granite, the next schistose, and the exterior belts calcareous. The granite forms commonly to confine of white felspar, bluish or rather pellucid quartz, and black mica. The schistose band presents copper ore; and in Canada, lead and silver are said to have been discovered. The limestone contains, as usual, many petrifactions, particularly the common ammon, a small scallop shell; and several forts of corals. The height of the chief summits, which appear to be in the province of New Hampshire, has not been accurately ascertained, but does not probably exceed 3000 feet above the sea; and they are often clothed with forests. Mr. Weld conjectures, that the Peaks of Otter, the highest of the Blue Mountains, are little more than 2000 feet high, and at any rate their height is much inferior to that of Snowdon. Morfe’s Amer. Geog. p. 392. Pinkerton’s Mod. Geog. vol. ii. p. 575.

APALACHICOLA, a river of America, between East and West Florida, rises in the Apalachian mountains, in the Cherokee country, within 10 miles of Tugaboo, the upper branch of Savannah river, and from its source to the mouth of Flint river, in a course of 350 miles, bears the name of Chata-Uche, or Chatuhoochee river. Flint river falls into it from the north-east, below the lower Creek towns, in N. lat. 31°. From thence it runs near 80 miles, and falls into the bay of Apalache, or Apalacheolina, in the gulf of Mexico, at Cape Blanche. From its source to N. lat. 35° its course is south-west, and thence to its mouth nearly south.

APALACHICOLA is also the name of the mother town, or capital of the Creek or Muscoyliu confederacy, called Apalachicola by Bertram; who describes it as a prefect place, no captives being put to death or blood shed there; and when a general peace is proposed, deputies from all the towns in the confederacy meet here to deliberate. Whereas the great Coweta town, 12 miles higher up the Chata-Uche river, is called the “Bloody Town,” where the Miccos chiefs and warriors assemble, when a general war is proposed; and here captives and slave maidens are put to death. Apalachicola is situated one mile and a half above the ancient town of that name, which lay on a peninsula, formed by the doubling of the river, but deserted on account of inundations. The town is about three days journey from Tallahassee, a town on the Tallapoosa river, a branch of the Mobile river.

APALACHY COUNTRY extends across Flint and Apalachees rivers in East Florida, having the Seminole country on the north-east. Apalache, or Apalachy, is also a name applied by some writers to a town and harbour in Florida, 90 miles east of Pensacola, and at the same distance west from Del Spiritu Santo river. The tribes of the Apalachian Indians lie around it.

APALATOA, in Botany. See CYCAS.

APALHAO, in Geography, a town of Portugal in Alentejo, containing about 1200 inhabitants.

APALORIA, an island that lies on the eastern coast of the peninsula of India, in S. lat. 9° 8’. E. long. 79° 40’.

APALUS, in Entomology, a genus of the coleoptera infects, with biliform antennae, equal and biliform palp, maxilla horny and undidentate, and lip membranaceous, truncated and entire. There is one species, the op. bimaculatus, pyrophora bisculata of Dugger; found early in the spring in the sandy parts of Sweden.

APAM, in Geography, a village of Africia, in the kingdom of Acron, on the Gold Coast, inhabited by fishermen, and fortified by the Dutch in 1697. See Acron.

APAMA, in Botany, a genus of the polyalthia polyanthrida clas and order: the characters of which are, that the calyx is trid, no corolla, and the filaments distributed in three ranks. Guervie mentions one species, viz. A. aubri, the alpum of Rheed, Malab. vi. p. 51. This is a tree in the East Indies, with ash-green bark and white wood. It is an evergreen, and bears fruit twice a year. With its juice and oil are formed an ointment which cures the itch, and deters old ulcers. La Mark. Encyc. t. i. p. 91.

APAMATUCK, in Geography, a river of North America, in Virginia, runs into the Powhatan.

APAMÆA, or APAMIA, in Ancient Geography, a town of Syria, situated in a marshy country, at the confluence of the Orontes and Marflas, which form a kind of lake, that has no communication with the land but by a small isthmus. It is about 60 miles almost south of Antioch, and about 90 from Aleppo, in N. lat. 35° C, E. long. 37° 18’. Its former name was Pharnacea, and the Macedonians called it Pella; and as it was almost wholly surrounded by water, it was denominated Cheroneus. According to Strabo, it was founded by Seleucus Nicator; and derived its name from his wife Apamea, the daughter of Artabazus the Persian. It had its own kings till the arrival of Pompey in Syria; and afterwards the whole country became a Roman province. It was there, says Strabo, that the Seleucidæ had established the school and nursery of their cavalry. The soil of the vicinity, abounding in pasturage, fed no less than 30,000 mares, 300 stallions, and 500 elephants. It is now called Famia; and its marshes scarcely afford supply for a few buffaloes and sheep. To the veteran soldiers of Alexander, who here repose after their victories, have succeeded wretched paupers, who live in perpetual dread of the oppressions of the Turks, and the inroads of the Arabs. Some have transformed this city to have been the present Hamah, Volney’s Travels, vol. ii. p. 298.

APAMEA is also a town of Asia Minor, in Bithynia. It was originally called Myrela, but destroyed by Philip, king of Macedon, the son of Demetrius, and the father of Perseus; and given to his ally Prusias the Bithynian, who rebuilt it, and called it after his wife’s name, Apama. Such is the account of Strabo. But Steph. Byz. says, that it was founded by Myrelus, a general of the Colophonians; and that Nicanedes Epiphaneus, son of king Prusias, called it Apamea in honour of his mother. Others say, that it derived its name from Myrela, an Amazon. The Romans fixed a colony there called Colonia Apamæa.

APAMEA Cibotar, so called, according to Sarmusius, from καβότας, an ark or coffer, because it was the last common treasury of those who traded from Italy and Greece to Asia Minor, was the metropolis of Phrygia, till Constan- tine’s division of the empire. It was situated at the confluence of the Marfylas and Maenander. It was built, according to Strabo, by Antiochus Soter, and so called from his mother Apameia, the wife of Seleucus Nicator. He also removed...
removed the inhabitants of the ancient Celeny, the situation of
which is confirmed by some writers with that of Apama,
and this city. It is now called Apamia Koria Hisar, or
the black castle of Opium, which drug is collected in its

Apama was also a city on the confines of Media and
Parthia, not far from Ragaz, and surnamed Raphane,
probably as it should have been, Ragane.

Apama, Mefene, is a town of Asia, in Mesopotamia,
situated to the south-call upon the Tigris, in a district which
lay between the eam and the river, whence the epithet Mefene,
because it was in the midst of that small territory
now called Dikedel.

Apama, Keoma, a town situate at the confluence of
the Tigris and Euphrates, to the south of the preceding.

Apama, Cebene, a town of Asia, on the left bank of
the Euphrates, opposite to Zengma; both founded by Se-
leucus, and connected by a bridge.

APAMIS, a name anciently given, according to Steph.
Byz. to Lampacus.

Apamis is now the name of the Ancient Apamea, on
the Meander, called Mindra, a town of Asiat India
Turkey, and the city of a Greek bishop; 100 miles west of Elki-
hisar.

APAMMARIS, a town of Asia in Syria, on the banks
of the Euphrates, south-call of Hierapolis.

APAN, in Cn tochology, a name given by Adamson to the
name shell as Linnaeus has since called PINNA RUDIS; which
see.

APANAGE, APENAGE, APPANAGE, APANAGE, or
APENAGE, in the French Law, the fortune of a king's
younger son; or a settled portion of land, &c. assigned for
the subsistence of the cadets or younger sons of a sovereign
prince. Need and Menage derive the word from paenite,
bread, which frequently includes all other sorts of provi-
sion necessary for subsistence. Some will have the apangages,
at the first institution, to have been only pensions, or an-
ual payments, of a certain sum of money.

During the first and second races of kings, the right of
prinogeniture and apangages were unknown; but the do-
 mains were divided pretty equally among all the chil-
dren.

Great inconveniences arising hence, it was at length found
proper to put off the younger-born with counties, dukish,
or other districts, on condition of their paying homage and
fealty for the same; and of their reverting, in defect of
heirs male, to the crown.

This has happened, accordingly, to the first and second
branch of the dukes of Burgundy. The duchy of Orleans
was the apangage of the second son of France. The apa-
ngage was unalienable; collateral branches did not inherit
it. The eldest son alone was heir to the whole apangage:
but bound to allow the younger an honourable mainte-
ance.

1. France, apangages were of two kinds, royal and ca-
family; the first only granted to male the king's brothers,
exclusive of the females. There are not so properly aliena-
tions of the king's demesnes, as demembroting of them.
Cafmanny apangages were those granted to women, the king's
sisters. Jouvin. Miveras has published a body of all the
writers on apangage and pragage, in one volume in folio.

APANORMIA, in Geography, a town in the island of
Santaon, in the Archipelago; it has a spacious port, in the
form of a half-moon, but the sea is so deep as to afford no
anchorage.

APANTA, or APANTE, a province of Terra Firma, in
South America, between the lake Parima and the river of
the Amazonas; to the west of the province of Carepa.

APANTHROPY, in Medicine, a term sometimes used
to denote a love of solitude, or an aversion from the com-
pany of mankind; and is reckoned by some a symptom, and
by others a species or degree of melancholy; and it is a
bad indication in melanchymatic cases.

APAN FARE, in Entomology, a species of cancer that
inhabits Chili. The thoris is ovate, sides denticulated,
tail triangular. Molin. and Gmelin.—Obv. legs hairy, tail
rather long.

APARA, in Zoology, a species of armadillo or dasyp-
pus. See Dasyphus.

APARGLA, in Botany. See Hydypnois.

APARIA, in Geography, a province of South America,
in Peru, near the river of the Amazons, where it receives
the Curavaya.

APARINE, in Botany. See Asperugo, Galium,
Sherardia, Valantia, and Utricularia.

APARINES, See Ammania.

APARITI S, in the Ancient Poetry, an appel-
lusion given to a verse, which comprehended an entire line
or sentence in itself.

This is sometimes also written apartemus, i.e. suspend-
ed, as not needing any following verse.

APARTMENT, a portion of a large house, wherein
a person may lodge separately; having all the conveniences
required to make a complete habitation.

The word comes from apartimentum, of the verb partiri,
to divide; or, as some imagine, a parte mansio, making
part of a dwelling.

A complete apartment must consist of a hall, a chamber,
an antechamber, a closet, and a cabinet or wardrobe.

APATE, in Botany. See Lectuca.

APATE, in Entomology, a genus of coleopterous insects
in the Fabrician sytem (Ent. Syn.); the character of which
is, feclors bilorum; jaws, one tooth in each; lip membrana-
ceous and truncated; and the antennse perforated. This
genuse includes some of the Linncean dermestes, as capucius
and domestieus; bolrichus of Geoffroy and Oliver, as
cornufus & bicamellatus; and ligniperda of Pallis, as
terebra & cornuta.

Gmelin makes a subdivision of the Linncean dermestes,
in his edition of the Sytema naturae, according to the num-
ber of teeth in the jaws, maxilla bifida, and maxilla uni-
dentata; the latter he calls apate, and it includes several of
the species described by Fabricius in his genus of the
same name.

APATHY, formed of the privative, α, and ἀπαθεῖν, ap-
ath, denotes an insensibility; or a privation of all passion,
all emotion, or perturbation of mind.

The Stoics affected an entire apathy; their wisdom was
to enjoy a perfect calmness or tranquility of mind, inca-
pable of being ruffled, and above the reach of any fene
either of pleasure or pain.

Whil's Epicurus taught his followers to seek happiness
in a kind of indolent ease or freedom from labour and pain;
Zeno imagined his wife man, not only free from all fene of
pleasure,
pleasure, but void of all passions and emotions, and capable of being happy in the midst of torture. That he might avoid the torpid indolence of the Epicureans, he had recourse to a moral institution, which bore indeed the lofty front of wisdom, but which was elevated far above the condition and powers of human nature.

In the first ages of the church, the christians adopted the term apathy to express a contempt of all earthly concerns; a state of mortification, such as the gospel precribes. Clemens Alexandrinus, in particular, brought it exceedingly in vogue; thinking, hereby, to draw the philosophers to Christendom, who aspired after such a sublime pitch of virtue.

Quietism is only apathy disguised under the appearance of devotion.

APATI, in Geography, a small town of Hungary in the county of Jarmat, situated on the river Carasna or Tisza, east of the latter Varadin, and north-west of Sams. Its territory is fertile in grain and purlarge.

APATITE. Phosphpnite of Kirwan. Calcarea apatites of Werner.

This mineral is divided by the German mineralogists into two varieties, the crysallized, and earthy.

The usual colours of this substance are greenish-white, mountain green, olive green, violet blue, rose-red, and close brown; more rarely pearl grey, greenish grey, sky blue, Prussian blue, or flesh red. In some crystals several of the colours are combined, other fpecimens are indetermiante.

It is generally found crysallized, but occasionally dehivated; the forms of its crystals are the following:

1. A short regular hexagonal prism (Ch.roph. périododeaede of Haury), Crystallography (Pl. xxx. fig. 92), but this is of rare occurrence.

2. The fame prism truncated on its pendicular edges (Ch.roph. minéral of Haury), Crystallography (fig. 91). Incidence of $r$ on $M = 150^\circ$. The sides $r$ are often striated longitudinally.

3. The same prism bevelled on its lateral edges (Ch.roph. minéral of Haury), Crystallography (fig. 92). Incidence of $r$ on $M = 112^\circ 12'$ $38''$, and on $P = 157^\circ 47'$ $32''$.

4. The same prism exhibiting a combination of the truncatures and bevelling of the two preceding varieties (Ch.roph. emarginée of Haury), Crystallography (fig. 93).

5. The same prism bevelled on the edges as No. 3, and having a quadrangular facet on each of the solid angles of the original prism (Ch.roph. minéral of Haury), Crystallography (fig. 94). Incidence of $r$ on $P = 125^\circ 15'$ $53''$. Crystallography (fig. 94).

These crystals, &c. are commonly small, or very small, being rarely of a middling size; they are almost always grouped one upon the other in an irregular manner, being seldom found single. The surfaces are usually smooth, except the lateral faces of the prisms which are sometimes furrowed with long longitudinal lines. Their external figure is shining, and often brilliant. Internally they are shining, with a vitreous luster.

The cross fracture (or parallel to the base of the prism) is straight lamellar; in the opposite direction it is uneven fine-granular, sometimes imperfectly conchoidal.

Its fragments are indeterminate, with somewhat sharp edges.

It is usually semitransparent, pulsing, however, on one hand to transparent, and on the other to translucent.

Its hardness is a little inferior to that of flour spar; it is brittle, easily broken; fp. grav. = 3.218.

When thrown on hot coals, the apatite gives a greenish phosphoric light. It is infuscible, without addition, by the flame of the blowpipe, only losing its colour. It dissolves almost totally in nitric acid. It has been erroneously supposed to become electric by mere heat, not acquiring this property without friction.

According to the analysis of Klaproth, its constituent parts are 55 lime and 45 phosphoric acid, with a little man-ganese.

It is met with in the tin-mines of Ehrenfriedshofd and Schneeberg in Saxony, and at Kutenberg and Schlaenwald in Bohemia, accompanied by flour spar, quartz, brown spar, wolfram, molybdena, lithomarga, flettite, and cupreous and arfenzal prytces.

This mineral was formerly considered as a fect of some authors, as a flour spar by others; it was also not unfrequently ranked among the beryls and aquamarines; hence its old German names of aquamarinus, chrysolithius, bafaltamethyft, &c. The analysis of Klaproth however, in 1788, established its chemical nature; and Werner made a particular species of it, to which he appropriated the name apatite from the Greek apateia, to deceive, on account of its resemblance to substances from which it is essentially different. See Sparcegielstein.


Its colour is yellowish or greyish white. It occurs massive or earthy, amorphous.

Its fracture is earthy, passing into the fine grained uneven. The fragments are indeterminate, blunt-edged, sometimes wedge-shaped.

It is opaque; half hard, sometimes friable; brittle; easily broken; meagre and harsh to the touch; fp. grav. = 2.824.

On exposure to the blowpipe it yields a phosphoric light and fufes into a white glass; it is also phosphoric when pulverized and thrown on hot coals; it dissolves in nitric acid, and gives out white vapours when treated with the sulphuric acid.

Its constituent parts, according to the analysis of Bertrand, Pellletier, and Donadie, are,

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lime</td>
<td>59</td>
</tr>
<tr>
<td>Silex</td>
<td>2</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>34</td>
</tr>
<tr>
<td>Fluoric acid</td>
<td>2.5</td>
</tr>
<tr>
<td>Carbonic acid</td>
<td>1</td>
</tr>
<tr>
<td>Muristic acid</td>
<td>0.5</td>
</tr>
<tr>
<td>Oxyd of iron</td>
<td>1</td>
</tr>
</tbody>
</table>

This mineral is found in beds mixed with quartz, in great abundance in Spain, near Truxillo, in the province of Estremadura. It is used by the inhabitants of the country for building fhone, who appear to have been long accustomed with its phosphoriccement property. It is to Prooff however that the public is indebted for the first scientific account of it. (See his Letter to Darcefs, Journal de Physique for April 1788.)

Wiedemann's Handbuch der Mineralogie, p. 528. Emmering,

APATURIA, in Antiquity, a solemn feast celebrated by the Athenians in honour of Bacchus.

"The word is usually derived from πατόν, feast."

It is said to have been instituted in memory of a fraudulent victory obtained by Melanthus, king of Athens, over Xanthus, king of Butora, in a single combat, which they agreed upon, to put an end to a debate between them relating to the borders of their countries. — Hence Budeus calls it "seulum deceptas, the feast of deceit."

Other authors give a different etymology of this feast; they tell us, that the young Athenians were not admitted into the tribes on the third day of the Apaturia, till their fathers had full grown, that they were their own children, and that till that time, they were supposed in some mixture to be without fathers, πατός: whence the feast, they say, took its name.

Xenophon, on the other hand, informs us, that the relations and friends met on this occasion, and joined with the fathers of the young people who were to be received into the tribes; and that from this assembly the feast took its name; that in πατός, the α, far from being a privative, being here a conjunctive, signifies the same thing with από, together.

This feast lasted four days: the first day, those of the same tribe made merry together; and this they called έπατός; the second day, which they called πατός, they sacrificed to Jupiter and Minerva; the third day, which they called πατός, such of their young men and maidens as were of age were admitted into their tribes: the fourth day they called πατός.

APATURIAN, a denomination given by Strabo to a temple consecrated to Venus. It was built at Corocondoma, a peninsula between the Euxine sea and the Ialysus Meotis. The surname dextraful, from πατός, was given to Venus, because this deity used artifice in the war of the gods against the giants.

APAPULIA, in Antiquity, the third day of a marriage solemnity.

It was thus called, because the bride, returning to her father's house, had πατός την παιδιά, lodge apart from the bridegroom. Some will have the apapulia to have been the second day of the marriage, viz. that wherein the chief ceremony was performed; thus called by way of contradiction from the first day, which was called ναπαλία. On the day called παπαλία (whenever that was), the bride presented her bridegroom with a garment called παπαλιάκα.

APAUMEE, in Herodotus. The French heralds use this term to express a hand open and extended, so that the full palm appears, as is seen by the hand of Ullier, borne by the baronets of England.

APAVORTEN, in Geography, a pleasant and fertile country of Asia, in Mawarahrana, to the eait of the Caspian sea. In this country, the faces, the rehers of the Parthian empire, built Dara or Daraum.

APE, in Zoology, one of the four sections into which the numerous race comprehended under the genus Simia, is divided; including thus as are definite of a tail. The other three are baboon, mandrill, and sigajus; to which some have added a fifth, called sigajus. For the Linnaeugeneric characteristics and distribution of the genus Simia, see SIMIA.

It is the distinguishing character of the ape, that they have no tails. Besides, their vifage is flat; the teeth, hands, fingers, feet, toes, and nails, resemble those of man; and they walk naturally erect. This division includes the many apes, properly so called, of the ancient, which are not found in America. Dr. Gmelin, in his edition of the Systema Naturae, refers to this division the following species, viz.

1. S. Troglodytes, or Chimpanze, which Dr. Shaw considers as a smaller variety of the Jocko, in its life thaggry or more naked State. 2. S. Salvinii, or Oran-otan, with the varieties, or two distinct species of this animal, as Dr. Shaw designates them, the Punco and the Jocker. 3. S. Lar, long armed ape of Pennant, and grand Gibbon of Buffon, with the varieties of the lesser gibbon and silvery gibbon. 4. S. Symphecus, or Pygmy. 5. S. Innum, Barbary ape, or Magot of Buffon. See the several articles.

APE, Sea, in Ichthyology, the long tailed shark, a species of Squaleus.

APE, Sea, in Zoology, is also a name given to a very singular animal seen by Mr. Steller on the coast of America, and which is thus described. It was five feet long, with a head like a dog's, erect and sharp ears, large eyes, a sort of beard on both lips, round body, thick neck near the head and tapering to the tail, which was bifurcated, the upper lobe the longest: its body was covered with thick hair, grey on the back, and red on the belly. Mr. Steller could discover neither feet nor paws. It was full of frollic, and played a thousand tricks, sometimes swimming on one side, sometimes on the other side of the ship, and looking out with seeming affrontment. It would come near the ship that it might be touched with a pole; but if any person stirred, it would immediately retire. It often raised one third of its body above the water, and float erect for a considerable time; then suddenly darter under the ship, and appeared in the same attitude on the other side; and it would repeat this 30 times together. It would frequently bring up a sea-plant, not unlike the hette-gourd, which it would throw about and catch again in its mouth, playing with it numberless fantastic tricks. Nat. Hist. of Quadrupeds, &c. vol. i. p. 575.

APECHEMA, Apocheuma, in Surgery, the same with Contrafissure.

APEDIA, in Zoology, fimia apedia, little baboon, with short tail, thumbs of the hands close to the fingers, oblong nails on the fingers, and rounded nails on the thumb, and hairy buttocks. This is said by Linnaeus to be of the fize of a squirrel; but in a description given in the Acconitates Academice, it is said to be as large as a cat. Its general colour is yellowish, the hairs being tipped with black; face brown, with a few scattered hairs; head roundish; ears roundish and naked; tail scarce an inch long. No bare spaces on each side. A native of India, and said to be a lively species. Gmelin queries whether this animal be not a variety of the simia fesures.

APEE, in Geography, an island, one of the new Hebes, about 20 leagues in circumference, situate in the South Pacific ocean. S. lat. 16° 45'. E. long. 168° 31'.

A-PEEK. See Anchor.

APE-EBIA, in Botany. See Aulettia.

APELCHE, or Apselscheluel, in Geography, a town of the United Netherlands, in the country of Friesland, 12 leagues south of Lewarden.

APELLA, in Conchology, a species of Tellina, figured by Chemnitz. It is oval, pellucid, colours changeable, with a white rib in each valve that extends from the hinge to the exterior margin. Gmelin. A variety (a) tellina paprica a alba spengleri is described by Schrot; this papreyaceous white kind, is found with the other in Nicobar.
APPE, among Physicins, a name given to those who prepare physicians of the tincture that is to be used in the preparation of medicines. It is the word that is used in the Latin language to denote a physician. The term is not usually applied to a physician who is a specialist in a particular branch of medicine.

APELLES, in Biography, the most famous painter of Antiquity, was born in the island of Cos, and flourished in the time of Alexander the Great, in the fourth century. Having been instructed in his art by Parmniphus of Amphipolis, he distinguished himself by his affability; and from this circumstance arose the proverb: "No day without a line." It was with this, in the exercise of his art, to approve himself even to the vulgar; accordingly when a shoemaker pointed out a defect in a shoe which he had painted, he corrected it; but when the same artist was proceeding to criticize the leg of his picture, he came forth from his hiding place, and reproved him in those words, which are become proverbial, "ne futor ultra crepidam." Such was his idea of excellence, that he used to write under his pictures, in the imperfect tense, "Apeles xerex, faciebat, and not πεπανθή, faciet." Nevertheless he censured Protagoras for not knowing when "to take his hand from his work," an expression which is become proverbial. The characteristic excellence of Apelles in all his performances was "grace," and in this he claimed the pre-eminence. His colouring was chaste and simple; and, according to Pliny, he used only four colours. The varnish with which he covered his pictures was of a peculiar kind, and served to soften and harmonize his tints. It is recorded of him, that when he saw a Helen painted by one of his pupils with a profusion of gold and jewels, he said jococely to him; "not knowing how to make her handsome, you have made her rich." Apelles was a great favourite of Alexander, and was admitted into very intimate familiarity with him. Alexander would not allow any other painter to take his portrait; and it is related of Pliny, that when he had painted one of the most beautiful and beloved of his conceptions, Campaephe, naked, Alexander finding that Apelles had fallen in love with her, generously surrendered her to him. Apelles was permitted to use freedoms with Alexander, the reality of which has been disputed on account of their singularity. When Alexander was one day in his study, talking very ignorantly of his art, it is said that Apelles requested him to be silent, lest the boys who ground his colours should laugh at him. Apelles painted many pictures of Alexander, but the most famous was one, in the character of a thundering Jove, in the temple at Ephesus. The hand which held the thunderbolt seemed to come out of the canvas, and excite horror in those who beheld it. But the most celebrated of all the pictures of Apelles was his "Venus Anadomene," or rising from the sea, and prefenting her wet locks with her hands. The lower part of it was injured by time; but no one ventured to repair it. Another unfinished Venus, of which the head and neck only were executed, was very much admired. Several of his other works were the ornaments of the temples and other edifices in which they were placed. Of the volumes which he wrote on art, and inquired of one of his scholars, nothing is extant. Apelles was fond of society, pleasant in conversation, addicted to pleasure, and devoted to the fair sex. It is said that the beautiful Lais was initiated by him into her profession. The time and place of his death are not known.

APELLES was the name also of one of the first of the Sarcophagi, who flourished about the year 100. Tertullian and some others charge him with criminality in his connexion with Philomene, a fanatical virgin who pretended to prophetic illuminations; but Rhodon, in Eufebius, bears testimony to his character, as a person venerable for his age and obscure mode of life. Beaufort and Lardner investigate him from this appearance. Apelles, however, separated from his master, and adopted different sentiments. Whilfe he taught that there is one God, perfectly good, he maintained that this holy and good God, who is over all, created an inferior deity, who was a fiery being, and who made heaven and earth, and all things in the world. He also believed that souls have faxes, or at least that bodies derived their faxes from the souls that animated them. Concerning Christ, he taught that he assumed flesh, not from the Virgin Mary, but that he formed for himself a body out of the four elements; and believing the reality of his crucifixion and resurrection, it was his opinion, that when Christ ascended, he surrendered his body to the elements from which he took it, and returned to heaven. These peculiarities of Apelles are ascribed to his conferences with Philomene. As he rejected Moses and the ancient prophets, he maintained that Jesus was the only person who ever came from God. He also denied the resurrection of the body. In other matters he generally agreed with Marcion, and concurred with him in condemning marriage. As to his opinion concerning the scriptures of the Old Testament, it appears by his writings, as they are cited by Eusebius, Origen and others, that if he did not absolutely reject the Old Testament, he charged upon it contradictions and contradictions, and he laboured to evince the difficulties that occur in it, if not totally to overthrow its authority. His sentiments concerning the New Testament were probably not different from those of Marcion; as he denied the miraculous conception of Christ, it is likely that he rejected at least the beginning of the gospels of St. Matthew and St. Luke. It appears, upon the whole, that he treated the scriptures as Marcion did, by receiving part, and rejecting what did not suit his purpose. And to this purpose Epiphanius accuses him with acting, in this respect, like a judge, and not like an interpreter of scripture. None of Apelles's writings are preserved, and therefore we must depend altogether upon the report of others with regard to his sentiments. Lardner's Works, vol. ix. p. 437—448. Cave's Hist. Lit. tom. i. p. 85.

APELLES in Entomology, a species of Scarabaeus, found at the Cape of Good Hope. The head is furnished with a very short horn; and the wing-cases are cinnereous, with elevated black dots. Fabricius, and Gmelin. This is a small insect: the legs are yellow and spotted with black.
APE

**APE**

**APE** is a species of *Hesperia viridissima* in the Fabianaceae family. (Ent. Syst.) The wings are dentated, falcate, bordered brown. Under side of the posterior pair marked with rufous slaty-margined bands. Habits New Holland. Obs. In the Limmicaceae family, this is one of the *Papilio Pec. ruralis*.

**APELLE** in *Biography*, a piratical, was a native of Teos, and lived about 90 years before Christ. He was extremely rich and ambitious: but his peculiar propensity led him to expend his wealth in the purchase of books. This propensity he indulged to such a degree, that his collection consisted of all the most scarce and valuable books that could be purchased or procured by any means, however illicit and dishonorable. Among other literary treasures, he at length obtained possession of the libraries of Aristophanes and Theophrastus. These libraries had passed, by bequest, into the hands of Nikias of Scepsis, and from him they descended to his heirs. When they were informed that the king of Persia, to whose jurisdiction Scepsis was subject, eagerly sought after books, they hired their collection in a cave, where they lay for more than 100 years, and suffered great damage. Apollon released this treasure, and purchased it at a great price. Upon removing his library to Athens, he called the writings of Aristophanes and Theophrastus to be copied; but the claims occasioned by the depletion of time were supplied by the transcribers, so that though the copies were made from the originals, they were of course in many respects erroneous and faulty. After Apollon's death, Syla seized on all his books, and took them with him to Rome to enrich his own library, and hence erroneous transcripts were communicated to the world. Apollon himself was more pleased with having the possession of valuable books than with the perusal and study of them; so that Strabo justly calls him a lover of books rather than a lover of wisdom; *παθετικόν μελέτην καὶ φιλοσοφίαν*. Strabo Geog. lib. xiii. tom. ii p. 920, &c.

**APELITAE**, in the Primitive Church, denote those who taught in the second century, that Christ left his body dissolved in the air, and ascended into heaven without it. See *APELLES*.

**APENE, axon, chariot, in Antiquity**, a kind of chariot wherein the images of the gods were carried in procession on certain days, attended with a solemn pomp, songs, hymns, dancing, &c.

The *apex*, or sacred chariot of the Greeks, is called *tenfis*.

It was very rich, made sometimes of ivory, or of silver itself, and variously decorated.

**APENNANA.** See *APANAE*.

**APENNINES, in Geography**, a chain of mountains or hills of Italy, extending from the Alps to the southern extremity of the kingdom of Naples. At first they are a branch of the Alps, which separates the plains of Piedmont from the sea; so that they commence near Ormea, in the high ridge which now forms the boundary of the French department of the Maritime Alps, and stretch without interruption along both sides of the gulf of Genoa, at no great distance from the sea, giving source to many rivers that flow to the sea. In the south of the former territory of Modena, after giving rise to the Panaro, and Reno, they proceed almost due east to the centre of Italy, where they afford fountains to the Arno and the Tiber, and thence pass south-east to the extremities of Italy, generally approaching nearer to the Adriatic than to the Mediterranean. These mountains confine, to the south of Bologna, of stratified grey hard limestone, with a few petrofactions. Yet in the Genoaese territory and Tuscany, appear not only the beautiful marble of Carrara, but rich serpentine, here called Gabbro, with fletlente and serbido. Granite, consisting of white felsipar and green mica, is also found here. Among the animals of the Apennines we may reckon the marmot and the ibex. Pinkerton's *Geog.* vol. i. p. 631. The Apennines derive their name from Alpen, a Celtic word, signifying a high mountain.

**APENNIS, in Ancient Laos**, a deed or instrument made in favour of a person, who has left the title-deeds to his house or land by fire. Du-Change.

In such cases, an assembly of the people of the neighbourhood being called, and an exact inquiry made before the judge, another instrument was framed to confirm and secure the unhappy person's right.

**APENAIDE, in Geography**, a sea port town of Denmark, in the duchy of Slewick, situated at the bottom of a bay in the Baltic sea, surrounded with hills, which form a harbour, both deep and secure. The inhabitants are much employed in fishing, and it is besides a place of considerable trade. N. lat. 54° 52'. E. long. 10° 7'.

**APEPSY, in Medicine**, denotes drowsiness, or a want of digestion.

The word is formed from the privative particle *a*, and *peps, I concert*.

**Appia** may be defined a defect in the stomach, which prevents the aliment taken in from affording a proper chyle for supplying the blood and nourishing the body. Abbe-mignonfels and excess are alike causes of indigestion. The method of treatment in the *appia* is the same as in the *anorexia*. The *columbo* root is particularly useful, when the stomach is languid, and digestion difficult, &c. It may be given in infusions with any grateful aromatic, or in Madeira wine, now and then interpolating gentle doses of rhubarb in tincture. A mixture of mulard-feed with the *columbo* root is of great utility in cafes of this nature, where acidity and flatulence prevail much in the *prima vis*. See Percival's Essays, &c.

**APER, Marcus, in Biography**, a Roman orator in the first century, was a native of Gaul, who distinguished himself by his genius and eloquence, and occupied several important posts in the empire. He was probably the author of the dialogue "On the Corruption of Eloquence," sometimes ascribed to Tacitus or Quinctilian, and placed at the end of their works. He died at Rome about the year 85. Gen. Brog.

**APER, in Zoology**, a name given to several species of the *Sus*; as the variety *ferus* of the *sus ferus*, the *sus tajosus*, the *sus arbiopus*, and the *sus babirius*. See those articles, and *BOAR*, and *HOG*.

**APER, in Ichthyology**, a species of *Zeus* that inhabits the seas about Rome and Genoa. The tail is even, and the body reddish. Linn. and Gmel. Some describe it as having the tail even, body entirely red or reddish, and the back reflected.

**APERAE, in Ancient Geography**, a town of Libya, which became an episcopal see.

**APERANTES, a people who inhabited Aperantia**, which was a district of Thessaly, situate towards the south-west, and abounding with mountains, in which was the source of the river Achelous.

**APERAE, in Zoology**, a species of *Cavia* or *Cavy*, having no tail, and the upper parts of the body being of a reddish ash-colour. This is the *cuniculus brasilienis*, having
A P E

no tail, &c. of Drissen and Ray; the aperas of the Brasilians, so called by Mecenrane, &c.; the enunciates indicus
form of Aldrovand. This animal inhabits Brazil, in the
caves of the rocks, from which it is driven out and taken
by little dogs; the colour of the upper part of the body
resembles that of the hare; its belly is white; the upper
lip divided; the ears short and rounded like those of a rat.
It moves like the hare, the fore legs being shorter than the
hind; it has four toes with short small claws on the fore feet,
which are black and naked, and only three on the hind, of
which the middle is the longest; its length is about 12
inches; its flesh is like that of the rabbit, but reckoned of
a superior flavour; and its manner of living is also very familiar.
There is a variety, which is the rock cavy of Perent, of
a black colour, mottled with tawny on the back, belly and
white throat. It is exactly similar in every respect, except
in colour, to the former. The animal called cori by Oviedo,
Charlevaux, &c. is thought by Buffon to be the same with
the apera. There are many varieties of the cori with respect
to colour; and they are found in various parts of the West
Indies, and on the continent of America.

APE R I E N S O tis, in Anatomy, a name given by some
writers to a muscle of the mouth, called by Albinus héventer
maxilla inferioris, and by others DIGESTIVUS.

APE R I E N T S , or Digestive, medicine, from aperio, I
open, are such as are said to open obstructed passages: and
particularly to restore suppressed excretions or evacuations;
and the term is most commonly applied to those that are
adapted to open the vesicles of the uterus, and thereby to
evade the retained, or to restore the suppressed, menstrual
flux. The term, however, as variously employed, both with
respect to different cases and to different modes of operation,
is, without specifying the particular case and operations,
The term apertures in its present use is synonymous with
laxatives or purgatives, which see.

APE R I S TAT I O N , from a, without, and περιέσεσα, un-
favourable circumstance, in the Ancient Physic, denotes an
ulcer of a mild or benign kind, and not attended with any
severe symptom.

APE R IO P L A, in Ancient Geography, a small island of
the Aegean sea, opposite to the promontory of Duponthmos
in the Argolid. It was so called by Pliny.

APE R I O N S , in Architecture, are the openings in a
building, as doors, windows, staircases, chimneys, outlets
and inlets for light, smoke, &c.

The apertures should be as few as may be; it being a
rule, that all openings are weaknesses; and they should
not approach too near the angles of the walls.

APE R TO, Ital. in Musée, open, opposed to Chiusa, close.

APE R T O R , auri, in Anatomy, a name given by Spal-
clius and others to the muscle called the aperas pollebrum,
and levator pollebrum superiores by others.

APE R T U R E , the opening of any thing; or hole, cleft,
or vacant place, in some otherwise solid or continuous sub-
ject. It comes from aperire, to open.

In Geometry, aperture is used for the space left between
two lines, which mutually incline towards each other to
form an angle.

In Optics, aperture is the hole next the object-glass of a
telecope or microscope, through which the light and
image of the object come into the tube, and are whence carried
to the eye.

APE R T U R E S is also understood of that part of the object-
glass itself which covers the former, and which is left per-
vious to the rays. See TELESCOPE.

A great deal depends on having a full aperture. To find
it experimentally, apply several lines of black fumetted
paper, each bigger than the other, upon the face of the
grafs, from the breadth of a straw to such as have only a
small hole in the grafs; and with each of these separately
view several distinct objects, as the moon, stars, &c.; that
through which they appear the most distinctly is to be choos.

M. Auzout affirms, that he found that the apertures of
telescopcs ought to be nearly in the subduplicate ratio of
their lengths; but Huygens, who first found that the use
of apertures conducted very much to one perfection of tele-
scope, affirms us he found by experience, that the aper-
ture of an object-glass, e. gr. of 30 feet, is to be determined
by this proportion; as 30 to 3, that is, as 10 to 1, so is the
square root of the distance of the focus of any glafs multi-
plied by 30 to its proper aperture; and the focal distances
of the eye-glafs are to be proportional to the apertures.
A table of apertures for telescopcs of various lengths, &c.
see under the article TELESCOPE.

The greater or less aperture of an object-glass, it is to be
noted, does not increase or diminish the visible area of the
object; all that is effected by this is the admittance of
more or fewer rays, and, consequently, the more bright or
obscure appearance of the object; but the largeness of the
aperture or focal distance causes the irregularity of its re-
frations. See ABBERRATION.

Hence in viewing Venus through a telescope, a much less
aperture is to be used than for the Moon, Jupiter, or Sa-
turn, because her light is so vivid and glaring. This
circumstance does a little invalidate and disturb M. Auzout's
proportion, as is shown by Dr. Hook. Phil. Tran. N° 4.

APE R T U R A tabularum, in Ancient Law Books, signifies
the breaking open a last will and testament.

APE R T U R A fesci does denote the loss of a feudal tenure,
by default of illece to him to whom the feud of see was first
granted.

APE S A S , or APE S A N T S , in Ancient Geography, a
mountain of Peloponnese, in the territory of Nemea.

APE T A L O U S , or APETALOUS plants, are such as are
without, or have an imperfect or flameous flower. They
are so called because they are defluvite of those tender fugu-
cious coloured leaves, called petals; but consist only of a
calyx or cusp, and of stigma, or capillaments, or stigmas.
Phil. Tran. N° 56.

The word comes from the privative particle a, and
πετάλον, folium, a leaf.

The apezatous kind is subvided by Ray, 1. Into such
whose fruits are not contiguous to their flowers; as in hops,
hemp, nettles, spinach, mercury, palmu Chrifti, the Ameri-
can physic-nut, &c. 2. Such as have a triquetrous or
triangular feed, as the does, forrels, armsarts, knot-grafs,
snake-weeds. 3. Those which have round, comprefeed,
and otherwise figured feeds, as the pond-weeds, oracles,
salt purification, the brites, the amaranth, the beets, some
kalics, &c.

APE T N A, in Ancient Geography, a town of Bactia,
near Corduba.

APE T O U S , or APETUBES, in Geography, a people of
South America, in Brazil, occupying the parts in the vicin-
ity of the government of Puerto Saguro.

APE U T I C , from απετυχω, I deprecate, in the Ancient

Poetry.
APHASCITES, a people of Libya, who had no fixed habitation.

APHARANTITES, a people who were transferred together with the Apharses into Samaria, by Ehabadon, king of the Syrians, and who opposed the Jews in rebuilding their temple. Ezra, iv. 9.

APHAS, called by D'Anville Avas, a river of Epirus, which ran from north to south in the eastern part of the country, and discharged itself into the Ambracian gulf, at some distance to the east of the Achaiaus.

APHARIA, from A, and phi, I speak, in the Septuagint, signifies a fable of doubt, wherein a person not knowing what to determine on, it is bel felt for him to be silent. In this sense aphis means opposed to phygi, under which are included both affirmation and negation.

APHÉA, in Mythology, a goddess worshipped by the Egyptians and Cretans. Pindar wrote an ode in honour of her, and she had a temple in the island of Creta. The Cretans confounded her with Diana.

APHÉMARIA, one of the three triarchies added to Judæa by the kings of Syria.

APHÉRESIS, from a, and phi, I take away, in Grammar, a figure whereby something is taken away from the beginning of a word.

Thus zonis, by aphasis, is written conia; contemnere, semnere; unditum, mitture, &c.

A like retraction at the end of a word is called aphasis.

APHÉRESIS, in Medicine, denotes a necessary taking away or removing of something that is noxious.

In Surgery, it signifies an operation whereby something superfluous is taken away.

APHANES or Aphanes, not apparent from its diminutive, in Botany, parley-piert. Linn. Gen. 166. Schreb. 223. Juff. 317, Clais, Tetrandria digynia, or Monandria monogyz; natural order, fentosia; sapience of Jehovah.

Generic Character. Calyx, perianth one-leaved, tubular, permanent, mouth one, eight-petalled; corolla none; filaments, filaments four, or one, erect, tubate, very small, placed at the mouth of the achenes, or reflexed, as in one twin; pistilum, germ ovate; style bifurcated; anthers in the form of filaments, cylindrical, none; style ovate, acuminate, compressed, contained in the bottom of the calyx. This plant is by Dr. Smith removed to the genus alecbnella. Flor. Brit. vol. i. 190. 1. A. arvensis, parley-piert. HUD. Aug. 72. WRETH. 147. Flor. Dan. 975. A small annual plant, with spreading branched leafy stems; leaves alternate, petiolate, palmatifide, crenate and indented, hairy; calyx eight-toothed, alternately very minute; seeds one or two; it is a common British plant, growing in fallow fields. In most of the old Herbals, it is called parsley break-fox, from its supposed lithriptitic qualities.

APHAR, in Ancient Geography, the metropolis of Arabia Felix, situated near a bay on the sea-flower, and not far north from the Promontorium Aromatum. Aphar according to some authors, was the capital of the Hauranites, where the king kept his court. In the Noticia Imperii, Aphar is a river. This place, now called Al-Fara, is situated in the region between Meeza and Medina.

APHARA, or APHERA, a town of Palestine, in the tribe of Benjamin.

APHAKANTES, a people of Libya, who had no fixed habitation.

APHARANTITES, a people who were transferred together with the Apharses into Samaria, by Ehabadon, king of the Syrians, and who opposed the Jews in rebuilding their temple. Ezra, iv. 9.

APHAS, called by D'Anville Avas, a river of Epirus, which ran from north to south in the eastern part of the country, and discharged itself into the Ambracian gulf, at some distance to the east of the Achaiaus.

APHARIA, from A, and phi, I speak, in the Septuagint, signifies a fable of doubt, wherein a person not knowing what to determine on, it is bel felt for him to be silent. In this sense aphis means opposed to phygi, under which are included both affirmation and negation.

APHÉA, in Mythology, a goddess worshipped by the Egyptians and Cretans. Pindar wrote an ode in honour of her, and she had a temple in the island of Creta. The Cretans confounded her with Diana.

APHÉMARIA, one of the three triarchies added to Judæa by the kings of Syria.

APHÉRESIS, from a, and phi, I take away, in Grammar, a figure whereby something is taken away from the beginning of a word.

Thus zonis, by aphasis, is written conia; contemnere, semnere; unditum, mitture, &c.

A like retraction at the end of a word is called aphasis.

APHÉRESIS, in Medicine, denotes a necessary taking away or removing of something that is noxious.

In Surgery, it signifies an operation whereby something superfluous is taken away.

APHANES or Aphanes, not apparent from its diminutive, in Botany, parley-piert. Linn. Gen. 166. Schreb. 223. Juff. 317, Clais, Tetrandria digynia, or Monandria monogyz; natural order, fentosia; sapience of Jehovah.

Generic Character. Calyx, perianth one-leaved, tubular, permanent, mouth one, eight-petalled; corolla none; filaments, filaments four, or one, erect, tubate, very small, placed at the mouth of the achenes, or reflexed, as in one twin; pistilum, germ ovate; style bifurcated; anthers in the form of filaments, cylindrical, none; style ovate, acuminate, compressed, contained in the bottom of the calyx. This plant is by Dr. Smith removed to the genus alecbnella. Flor. Brit. vol. i. 190. 1. A. arvensis, parley-piert. HUD. Aug. 72. WRETH. 147. Flor. Dan. 975. A small annual plant, with spreading branched leafy stems; leaves alternate, petiolate, palmatifide, crenate and indented, hairy; calyx eight-toothed, alternately very minute; seeds one or two; it is a common British plant, growing in fallow fields. In most of the old Herbals, it is called parsley break-fox, from its supposed lithriptitic qualities.
APHELION

Apelia, from απελείον, simple, in Rhetoric, is used to denote simplicity of diction.

APHELION, from απελεύο, from, and ελεύο, run, in Astronomy, that point of the earth's or any planet's orbit, in which it is at the greatest distance from the sun.

Thus, a planet being in A (Plate I. Astron. fig. 9.) its utmost distance from the sun 8, at the extremity of the greater or transversal axis of the elliptic orbit, is said to be in its apsine. In the system of the sun's moving round the earth, the point in which it appears when the planet is in its apsine, is called apsine. The apsine stands opposed to the perihelion.

The times of the apsines of the primary planets may be known by their diameters appearing the smallest, and by their moving with the least velocity in a given time. Methods for calculating them, with the results of the computations, have been given by many astronomers; such as Riccioli, Almag. Nov. lib. vii. § 2 and 3; Wolthus, Elem. Astron. § 675; Dr. Halley, Phil. Trans. N° 138; Sir Isaac Newton, Princip. lib. iii. prop. 14; Dr. Gregory, Astron. lib. iii. prop. 14; Keili's Introd. to Astron. lect. xxi-xxiv.

De la Lande, Mem. de l'Acad. 1755, 1757, and 1766; and Astron. lib. xxii.; and also in the writings of M. Euler, M. D'Alembert, M. Clairaut, &c. upon Attraction. See also Vincent's Astron. vol. i. p. 170, &c., and the article Planet in this Dictionary. The places of the apsines are stated by different authors as in the following tables.

For the Year 1702, according to Kepler and De la Hire.

<table>
<thead>
<tr>
<th>Planets</th>
<th>Kepler</th>
<th>De la Hire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>8°. 13°. 41'. 18&quot;</td>
<td>8°. 13°. 27'. 12&quot;</td>
</tr>
<tr>
<td>Venus</td>
<td>10°. 7°. 38'. 0&quot;</td>
<td>10°. 7°. 28'. 31&quot;</td>
</tr>
<tr>
<td>Earth</td>
<td>3°. 8°. 27'. 23&quot;</td>
<td>3°. 8°. 28'. 43&quot;</td>
</tr>
<tr>
<td>Mars</td>
<td>5°. 1°. 36'. 9&quot;</td>
<td>5°. 1°. 31'. 38&quot;</td>
</tr>
<tr>
<td>Jupiter</td>
<td>6°. 10°. 14'. 33&quot;</td>
<td>6°. 10°. 33'. 45&quot;</td>
</tr>
<tr>
<td>Saturn</td>
<td>8°. 29°. 13'. 31&quot;</td>
<td>8°. 29°. 39'. 58&quot;</td>
</tr>
</tbody>
</table>

N. B. The place of the apsine of Herschel, or Georgium Sidus, in 1782, was 11°. 16°. 19°. 0°'; and in 1793, 11°. 29°. 42°'.

Kepler makes the earth's apsine to have coincided with the equinoctial point θ, on July 24, in the year 3993 before the Christian era, which, according to some authors, is about the time of the creation. At the same time, he makes the apsine of Saturn to be θ 24°. 58'. 0"; of Jupiter θ 23°. 34'. 18"; of Mars θ 15°. 0'; of Venus θ 0°. 0'. 0"; of Mercury θ 0°. 0'. 0"; and the apsine of the Moon θ 0°. 0'. 0".

None of the apsines of the planets are at rest; for their mutual actions upon one another keep those points of their orbits in a continual motion; and this is greater or less in the different planets. The course of this motion is in consequence, or according to the order of the signs; and Sir Isaac Newton shews, that it is in the sexagesimal ratio of the respective distances of the planes from the sun, or as the square root of the cube of the distances. This motion, arising from their mutual attraction, is ascertained by comparing the places settled by the ancient and modern observations; or by comparing the length of an anomalistic with that of a tropical or sidereal revolution.

To find the motion of the Earth's Apesine. Hipparchus, 140 years before Chrill, determined its place to be 2°. 5½'; and by the observations of Wallisius, in 1496, it was found to be 3°. 3°. 57°. 57°; whence the motion of the apsine is 1°. 24" in a year, with respect to the equinoctial points. M. de la Caille determined the place of the apsine for the beginning of the year 1749, to be 3°. 8°. 39'; which compared with the observation of Wallisius, gives 1°. 0" for the yearly motion. In the year 1788, Tycho determined the place of the apsine to be 3°. 5°. 30'; and Kepler, in the same year, determined its place to be 3°. 5°. 32'. These compared with the observation of Caffini, in the year 1738, who determined its place to be then in 3°. 8°. 19'. 8°", give about 1°. 7" for the annual motion. M. de la Caille determined the length of the anomalistic year to be 26°. 35° longer than the tropical year, which makes the motion of the apsine to be 1°. 3°. 15" in a year. Kepler made it 1°. 2"; Ricciolis 1°. 2°. 4µ. 4"", in a year. Mayer in his Tables makes it 1°. 6°. Dr. Halley makes it 1°. 1"; and Cassini about 1°. 1°. 25°.

M. de la Lande, in his Tables, makes it 1°. 2° as computed by M. de Lambre, from Dr. Malkeley's observations in 1785; and this determination is most to be depended upon, as made by so eminent an astronomer, from observations which
which are acknowledged to be the least that have been ever made. These motions are in respect to the equinox. If we assume it to be 1°. 20', and the precession of the equinoxes to be 50', we shall have the real motion of the apogee 11° in a year.

To determine the Motion of the Apheleon of Saturn. The place of the apheleon, in 1694, was 3° 28'. 5°; but from three oppositions observed in the years 1717, 1713, and 1736, the place for the year 1720 was 7° 24'. 11'. 20', which makes the annual motion 1°. 20'. Tycho found the place of the apheleon on December 19, 1593, to be 8° 23'. 40'. 51', which compared with the observation in 1731, gives 1'. 18', for the annual motion. The same observation of Tycho compared with the place of the perihelion on December 14, 1708, in 8° 28'. 25'. 10', gives 1°. 23'. 35' for the annual motion. If the same observation of Tycho be compared with the place of the apheleon in April 1694, in 8° 28'. 5°, it gives 1°. 53' for the annual motion. Caflini conjured from all this, that the motion of the apheleon was quicker now than formerly. He also found the perihelion, in 1593, not so far forward by a degree as it ought, when compared with the place of the apheleon in 1591, at the annual movement of 1°. 23'; from whence he suspected that the orbit had a librating motion, and that there ought to be an equation employed between the two points. The irregularities of Saturn, however, are so great, that we need not wonder at these differences. Kepler makes it 1°. 16'; Caflini supposes it to be 1°. 18'; and Dr. Halley 1°. 20'. M. de la Grange, from calculating the disturbing force of each planet upon the other, has determined the annual motion of the apheleon to be 1°. 6'. 3'. M. de la Place makes it 1°. 6'. 07' which M. de la Lande has employed in his Tables.

To determine the Motion of Jupiter's Apheleon. According to the observations of Ptolemy, the apheleon was in 14° 38' in the year 136; but in 1720 it was in 8° 40'. 47'; this gives 57°. 11' for the annual motion. In the year 1596, the place of the apheleon, calculated from the observations of Tycho, was found to be in 8° 64'. 50'. 43'; this compared with the observation in 1720, gives 1'. 30' for the annual motion. If we compare the places in 136, and 1596, they give 34' for the annual motion. This induced Caflini to think, that the motion of the apheleon is accelerated; or that it was subject to some irregularities; he states the motion at 57°. 24'; Kepler makes it 47°; Dr. Halley makes it 72°; M. Jeaurat computed the place of the apheleon in 1590 to be 8° 74'. 49'. 16'; and in 1762 in 8° 16'. 30'. 41'; from which he found the annual motion to be 58°. 4'; Euler, from the theory of attraction, found it to be 55°; M. de la Grange, 57'. 12'. M. Wargentin says, that an annual motion of 60' does agree with observations. M. de la Lande has employed 56°. 73' in his last Tables, according to the theoretical determination of M. de la Place.

To determine the Motion of the Apheleon of Mars. From three oppositions determined by Ptolemy, the place of the apheleon in 135 was found to be 3° 20'. 24'; and by the observations made at Greenwich in 1631, 1660, and in 1700, the place was found to be in 5°. 0'. 31'. 34' in 1666; hence the annual motion of the apheleon is 1°. 11'. 47'. 20''.

Kepler makes it 1°. 78'; Dr. Halley makes it 1°. 12'. From comparing the place, in 1748, in 5° 1°. 26'. 10'; the place in 1502 in 4° 28'. 49'. 50'; the motion is 1°. The mean of these determinations is 1°. 17'. 5'. M. de la Lande supposes it to be 1°. 27'.

To determine the Motion of the Apheleon of Venus. Caflini has found, from computing the place of the apheleon from the ancient observations, 11/16 of 15', from which uncertainty it is more difficult to determine its annual motion. However, the place, computed from the observations in 136, 138, and 139 (and which he thinks are the most to be depended in), was found, in 158, to be in 7° 21'. 29'; this differed compared with the observations in 1715, 1717, and 1718, when it was found to be in 7° 6'. 56' in 1716, the annual motion is found to be 1°. 42'. 50'. From comparing the place in 1596 in 7° 15'. 54' with the place in 1710 in 7° 6'. 56', the motion is 2°. 28'. Horrox fixed the place of the apheleon in 1720 in 7° 50'; this compared with the place in 1716, gives 1°. 20' for the motion. By comparing the place of the apheleon in the first Tables of M. de la Lande with the place in Kepler's Tables, the annual motion comes out 2°. 41'. 54'; Caflini makes it 1°. 20'; and Dr. Halley 56'. 5'. Kepler makes it 1°. 18'. Amidst so much uncertainty, M. de la Lande thinks it better to depend upon the theory which, according to M. de la Grange, makes it 48', and which M. de la Lande employs in his Tables. On account of the small eccentricity, this uncertainty of the place of the apheleon is not of so much consequence, as an error of 1° in the place of the apheleon will never produce an error of 1° in the heliocentric longitude.

To determine the Motion of the Apheleon of Mercury. From the observations of the pallsages of Mercury over the sun in 1661, 1692, and 167, Caflini determined the place of the apheleon on November 9, 1693, to be in 8° 16'. 28'. 29'; and upon supposition that the motion of the apheleon was 1°. 20' in a year, he found that it represented the pallsages very well in 1631, 1672, 1723, and 1736. But as these pallsages were nearly at the same point of the orbit, it does not sufficiently establish 1°. 20' to be the true motion, as it might answer to the same points nearly, but not to other parts of the orbit. We ought not therefore to be surprized, says M. de la Lande, that a motion of 54' 15' by Dr. Halley answers equally well to the same observations. Kepler makes it 1°. 45'.

M. de la Lande found, by the greatest equation, that on May 6, 1753, the place of the apheleon was 8° 13'. 55'. From comparing this place with the place computed from eight observations of Ptolemy (rejecting four others, two of which did not appear to be reconcilable with each other, and four were too near the apheleon), he found the motion to be 1°. 10' in a year, which he constructed from his first Tables upon observing, however, that the same time, that this motion does not agree perfectly with the observations in this century. He has since found that a motion of 56'. 25' will agree with observation; and this he has affirmed in his last Tables. M. de la Grange makes it 57' by theory. The motions of the apheleon here determined are their motions in longitude; if therefore we subtract 59' 25' (the annual precession of the equinoxes) from each, we shall get their real motions.
Motion of the Aphelia in One Hundred Years.

<table>
<thead>
<tr>
<th>PLANET</th>
<th>M. CASSINI</th>
<th>DR. HALLEY</th>
<th>M. DE LA LANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>2° 13’ 26”</td>
<td>1° 27’ 37”</td>
<td>1° 33’ 45”</td>
</tr>
<tr>
<td>Venus</td>
<td>2° 23’ 20”</td>
<td>1° 34’ 13”</td>
<td>1° 21’ 0”</td>
</tr>
<tr>
<td>Earth</td>
<td>1° 42’ 55”</td>
<td>1° 41’ 0”</td>
<td>1° 43’ 35”</td>
</tr>
<tr>
<td>Mars</td>
<td>1° 59’ 38”</td>
<td>1° 56’ 40”</td>
<td>1° 51’ 40”</td>
</tr>
<tr>
<td>Jupiter</td>
<td>1° 35’ 42”</td>
<td>2° 0’ 0”</td>
<td>3° 34’ 33”</td>
</tr>
<tr>
<td>Saturn</td>
<td>2° 09’ 44”</td>
<td>2° 13’ 20”</td>
<td>1° 50’ 7”</td>
</tr>
</tbody>
</table>

According to the calculations of M. de la Grange, the aphelion of the Georgian planet is progressive 5° 17 in a year, from the action of Jupiter and Saturn; consequently its motion in longitude is 50° 25 + 5° 17 = 55° 42. He has also calculated the effect of each planet in disturbing the aphelion of the rest. The following table contains the annual effect.

Annual Motion of the Aphelia.

<table>
<thead>
<tr>
<th></th>
<th>MERCURY</th>
<th>VENUS</th>
<th>EARTH</th>
<th>MARS</th>
<th>JUPITER</th>
<th>SATURN</th>
</tr>
</thead>
<tbody>
<tr>
<td>By Mercury</td>
<td>. . .</td>
<td>- 4° 30”</td>
<td>- 0° 42”</td>
<td>0° 02”</td>
<td>0° 00”</td>
<td>0° 00”</td>
</tr>
<tr>
<td>- Venus</td>
<td>4° 14”</td>
<td>. . .</td>
<td>+ 5° 20”</td>
<td>0° 70”</td>
<td>0° 01”</td>
<td>0° 00”</td>
</tr>
<tr>
<td>- Earth</td>
<td>0° 84”</td>
<td>- 5° 06”</td>
<td>. . .</td>
<td>1° 92”</td>
<td>0° 01”</td>
<td>0° 00”</td>
</tr>
<tr>
<td>- Mars</td>
<td>0° 04”</td>
<td>+ 1° 18”</td>
<td>+ 1° 54”</td>
<td>. . .</td>
<td>0° 00”</td>
<td>0° 00”</td>
</tr>
<tr>
<td>- Jupiter</td>
<td>1° 56”</td>
<td>+ 6° 38”</td>
<td>+ 0° 79”</td>
<td>13° 31”</td>
<td>. . .</td>
<td>15° 79”</td>
</tr>
<tr>
<td>- Saturn</td>
<td>0° 08”</td>
<td>+ 0° 08”</td>
<td>+ 0° 19”</td>
<td>0° 70”</td>
<td>6° 56”</td>
<td>. . .</td>
</tr>
<tr>
<td>Real motion</td>
<td>6° 66”</td>
<td>- 1° 72”</td>
<td>15° 30”</td>
<td>15° 65”</td>
<td>6° 58”</td>
<td>15° 79”</td>
</tr>
<tr>
<td>Precession</td>
<td>50° 25”</td>
<td>50° 25”</td>
<td>50° 25”</td>
<td>50° 25”</td>
<td>50° 25”</td>
<td>50° 25”</td>
</tr>
<tr>
<td>Mot. in long.</td>
<td>56° 01”</td>
<td>48° 53”</td>
<td>63° 55”</td>
<td>65° 90”</td>
<td>56° 83”</td>
<td>66° 24”</td>
</tr>
</tbody>
</table>

M. de la Grange here supposes, as before, the density of Venus to be 1,31; but M. de la Lande makes it only 0,95; for this density, therefore, the second horizontal line must be diminished in the ratio of 1,31 to 0,95. See Vince’s Astronomy, vol. 1 c. 14.

APHELLAN, the name of a bright star in the constellation Gemini, marked α.

APHERNOUSLI, in Botany, a species of pine growing wild on the Alps. The timber is large, and the planks made of it are of a finer grain, and more beautifully variegated than deal; and may therefore be applied to many uses. It grows in bleak and barren ground, and most refemblies that which is called in England the Weymouth pine.

APHES DOMIN, in Scripture Geography, a place of Palestine in the tribe of Judah between Socho and Azæcha, where the Philistines were encamped whilst Goliath insulted the Israelites.

APHESIS, from αφεσις, I remit, in the Athenian Laws, was applied to the case of a person deeply indebted, who desired the people to remit part of the debt, on account of his disability to make payment.

Voetius has a dissertation express on the words apheis and parēis, and their difference.

APHETERIA, in the Ancient Military Art, a kind of engines used in the besieging of towns.

Suidas does not mention their particular form or structure. Aquinostok them to have been of the projectile kind.

APHIIODIDES, in Entomology, a species of acarius, of a red colour; the first pair of legs very long, and formed for running; two horns on the posterior part of the abdomen. Linn. Faun. Succ. Fab. This is la tique range des pierres a pattes antérieures fort longues of Geoffroy, and is found among flounces and rotten wood.

APHIDUM, a species of ichtumon that is produced from several of the European kinds of aphides. It is black, with yellow feet, and antenae about the length of the body. Geoff. Inf. L’ichtumon des pucerons.

APHILANTHROPY, from αφιλ, friend, and θηρος, man, among Physicians, denotes the flat or disorderly,
APHIS. 

wherein a person has an unnatural desire for mirth and society, and indulges solitude and melancholy.

APHIOCEN, a composition made principally of the buds of hemp before they flower. It is much in use among the Arabs, and has the intoxicating quality of opium.

APHION. Kara Hissar, in Geographia, a town of Asiatic Turkey in Nautalia, situated on the Mindeia, and defended by an elevated castle; 50 miles south from Kautia. N. lat. 58° 35'. E. long. 35° 13'. See APASHE.

APHIS, in Entomology, a very interesting and extensive genus of the Hemiptera order, in the Linnaean system. It is a tribe of creatures that has, in a particular degree, engaged the attention of naturalists for various reasons: their generation is equivocal, and their instinctive economy differs in some respects, from that of most other animals, as will appear hereafter.

Linnaeus defines the generic character of the aphis thus: 

beak infected, heated of five articulations, with a single bristle; antennae faveate, and longer than the thorax; either four erect wings, or none; feet formed for walking; posterior part of the abdomen usually furnished with two little horns. Geoffroy says, the aphides have two beaks, one of which is secreted in the breast, the other in the head; this last extends to, and is laid upon the base of the pectoral one; and serves, as that writer imagines, to convey to the head a part of that nourishment which the insect takes, or sucks in, by means of the pectoral beak.

The species enumerated by Linnaeus and Gmelin are:
longirostris ribis, arundinis, ulmi, papaveris, paeoniae, pruni, fambuci, solidaginoides, carapi, rumicis, acetosae, ligustici, lychnidis, capreae, paui, rofes, cortenis, picirodi, paeopodi, dauci, urticae, myrsinae, corni, tilii, juniperi, braulicet, craceae. lacuceae, fonchii, cirtii, cardui, achileae, tanaeceti, aburthii, millefolii, evonymi, avenae, fraxini, jacinthi, betulii, alni, roboris, fagi, quercus, pini, pineti, falcis, vitis, populi, trincula, viburni, mali, burlaria, apusines, urticae, aceris, triplicis, pilacheae, polype, polyanthis, faginae, plantaginis, archangelicae, leucanthemi, fabiofem, lacer, gelifcet, coriili, juglandis, balamites, gallarum, farinae, xylofæ, and mayeri. The whole of these, and, no doubt, many others, are found in different parts of Europe. They infest an endless variety of plants; and it is believed each species is particularly attached to one kind of vegetable only; hence each fort has been hitherto universally named after the individual species, or genus of plants, on which it feeds; or if that could not be ascertained, that on which it had been found; for some species are rather uncommon and little known, though others are infinitely too numerous. The aphides are sufficiently known by the indiscernible term of plant lice; they abound with a sweet and grateful moisture, and are therefore eagerly devoured by ants, the larva of coccinelle, and many other creatures, or they would become, very probably, more destructive to the whole vegetable creation than any other race of insects known.

If Bonnet was not the first naturalist (as is generally acknowledged) who discovered the mysterious course of generation in the aphides, or, as he calls them, pucerons, his experiments, together with those of his countryman Trembley, tended at least to confirm in a most satisfactory manner the almost incredible circumstances respecting it: that an aphis or puceron, brought up in the most perfect solitude from the moment of its birth, in a few days will be found in the midst of a numerous family; and that if the experiment be again repeated on one of the individuals of this family, a second generation will multiply like its parent; and the like experiment may be many times repeated with the same effect.

"M. Bonnet," says an ingenious writer, "had repeated some experiments of this kind, as far as the sixth generation, which all uniformly presented the observer with fruitful virgin, when he was engaged in a series of new and tedious experiments, from a philosophy imparted by M. Trembley, in a letter to him, who thus expresses himself: "I have formed the design of rearing several generations of solitary pucerons, in order to see if they would all equally bring forth young. In cases so remote from usual circumstances, it is allowed to try all sorts of means; and I argued with myself, who knows that one copulation might serve for several generations?" This "who knows" persuad M. Bonnet that he had not sufficiently pursued his investigations. He therefore now reared to the tenth generation his solitary aphis, having the patience to keep an exact account of the days and hours of the birth of each generation. He then discovered both males and females among them, whose amours were not in the least equivocal; the males are produced only in the tenth generation, and are but few in number; that these soon arriving at their full growth, copulate with the females, and that the virtue of this copulation serves for ten successive generations; that all these generations, except the first, from fecundated eggs are produced viviparous, and all the individuals are females, except those of the last generation, among whom some males appear to lay the foundation of a fresh series." Adams Muroc.

The history of aphides has also been very copiously treated upon by Dr. Richardson, in a paper printed in the 41st vol. of the Philosophical Transactions; nor must we omit another upon the same subject by the late ingenious Mr. Curtis, that appeared in the sixth volume of the Transactions of the Linnaean Society.

The tenor of Dr. Richardson's remarks is briefly this: the great variety of species which occur in the insects now under consideration, may make an inquiry into their particular natures seem not a little perplexing; but by reducing them under their proper genus the difficulty is considerably diminished. We may reasonably suppose all the insects, comprehended under any distinct genus, to partake of one general nature; and by diligently examining any particular species, may thence gain some insight into the nature of all the rest. With this view, Dr. Richardson chose out of the various forts of aphisides the largest of those found on the rose tree; not only as its size makes it more conspicuous, but there are few of so long duration. This fort appears early in the spring, and continues late in autumn, while several are limited to a much shorter term, in conformity to the different trees and plants whence they draw their nourishment.

If, at the beginning of February, the weather happens to be so warm as to make the buds of the rose tree swell and appear green, small aphides are frequently to be found on them, though not larger than the young ones in summer when first produced. It will be found, that those aphides which appear only in spring, proceed from small black oval eggs which were deposited on the last year's shoot; though when it happens that the insects make too early an appearance, the greater part suffer from the sharp weather that usually succeeds, by which means the rose trees are some years in a manner freed from them. The same kind of animal is then at one time of the year viviparous, and at another oviparous.

These aphides which withstand the severity of the weather,
ther, seldom come to, their full growth before the month of April, at which time they usually begin to breed, after twice calling off their exuvia, or outward covering. It appears that they are all females, which produce each of them a numerons progeny, and that without having intercourse with any male insect; they are viviparous, and, what is equally singular, they all come into the world backwards. When they first come from the parent, they are enveloped in a thin membrane, having in this situation the appearance of an oval egg; these egg-like appearances adhere by one extremity to the moth, while the young ones contained in them extend to the other, and by that means gradually draw the ruptured membrane over the head and body to the hind feet. During this operation, and for some time after, the fore part of the head adheres, by means of something that is glutinous, to the vent of the parent. Being thus suspended in the air, it soon frees itself from the membrane in which it was confined; and after its limbs are a little strengthened, is set down on some tender shoots, and left to provide for itself.

In the spring months there appear on the rose trees but two generations of aphides, including those which proceed immediately from the last year's eggs; the warmth of the summer adds so much to their fertility, that no less than five generations succeed one another in the interval. One is produced in May, which calls off its covering, while the months of June and July each supply two more, which call off their coverings three or four times, according to the different warmth of the season. This frequent change of their outward coat is the more extraordinary, because it is repeated more often when the infects come the soonest to their growth, which sometimes happens in ten days, where they have had plenty of warmth and nourishment.

Early in the month of June, some of the third generation, which were produced about the middle of May, after calling off their last covering, discover four erect wings, much longer than their bodies; and the fame is observable in all the succeeding generations which are produced during the summer months, but still without any diversity of sex: for some time before the aphides come to their full growth, it is easy to distinguish which will have wings, by a remarkable fulness of the breast, which in the others is hardly to be distinguished from the body. When the last covering is rejected, the wings which were before folded up in a very narrow compass, are gradually extended in a surpising manner, till their dimensions are at last very considerable.

The increase of these infects in the summer time is so very great, that by wounding and exhausting the tender shoots they would frequently suppress all vegetation, had they not many enemies to restrain them. Notwithstanding these infects have a numerous tribe of enemies, they are not without their friends, if those may be considered as such, who are officious in their attendance for the good things they expect to reap thereby. The ant and bee are of this kind, collecting the honey in which the aphides abound; but with this difference, that the ants are confant visitors; the bee only when flowers are scarce; the ants will suck in the honey, while the aphides are in the act of discharging it; the bees only collect it from the leaves on which it has fallen.

In the autumn three more generations of aphides are produced, two of which generally make their appearance in the month of August, and the third before the middle of September. The two first differ in no respect from those which are found in summer; but the third differs greatly from all the rest. Though all the aphides which have hitherto appeared were female, in this tenth generation several male infects are found, but not by any means so numerous as the females.

The females have, at first, the same appearance as those of the former generations, but in a few days, their colour changes from a green to a yellow, which is gradually converted into an orange before they come to their full growth: they differ also, in another respect, from those which occur in summer, for all these yellow females are without wings. The male infects are, however, still more remarkable, their outward appearance readily distinguishing them from this and all other generations. When first produced they are not of a green colour like the rest, but of a reddish brown, and have afterwards a dark line along the back; they come to their full growth in about three weeks, and then cast off their last covering, the whole insect being after this of a bright yellow colour, the wings only excepted: but after this change they become of a deeper yellow and in a few hours of a dark brown, if we except the body, which is something lighter coloured, and has a reddish cast. The males no sooner come to maturity than they copulate with the females, who, in a day or two after their intercourse with the males, lay their eggs, generally near the buds. Where there are a number crowded together they of course interfere with each other, in which case they will frequently deposit their eggs on other parts of the branches.

It is highly probable that the aphides derive considerable advantages by living in society; the reiterated punctures of a great number of them may attract a larger quantity of nutritious juices to that part of the tree or plant where they have taken up their abode. Vide Adams Microf. Phil. Trans. &c.

The observations of Mr. Curtis on the aphides are chiefly intended to show that they are the principal cause of blights in plants, and the sole cause of the honey-dew. He therefore calls them the aphides, or blighters; and after observing, that in point of number, the individuals of the several species compone the superior to those of any other genus in the country, speaks thus, in general terms, of the whole tribe:

"These infects live entirely on vegetables. The least tree is no less liable to their attacks than the most humble plant. They prefer the young shoots on account of their tenderness; and on this principle often infest little trees into the very heart of the plant, and do irreparable mischief before they are discovered. But for the most part, they best The foliage, and are always found on the under side of the leaf, which they prefer, not on account of its being the most tender, but as it affords them protection from the weather, and various injuries to which they would otherwise be exposed. Sometimes the root is the object of their choice, which, from the nature of these infects, one would not, a priori, expect; yet I have seen them root the roots of the trees, and the entire root, in the course of the worst storms, and the most exposed, and little value; but these influences are rare. They rarely also attach themselves to the bark of trees, like the aphides, being one of our largest species, and hence possessing superior strength, is enabled to penetrate a substance harder than the leaves themselves."'
the sole cause of the failure of the crops of hops. In 1794, a season almost unparalleled for drought, the hop was perfectly free from them, while peas and beans, especially the former, suffered very much from their depredations. Beans, in 1798, were almost wholly cut off by them; indeed they suffer more or less every year by a black species of aphis, particularly the latter crops. To potatoes, and even corn, they prove in some years highly detrimental, and not less so to melons. To plants in flowers, green houses, and frames, where, from the warmth and shelter afforded them, a preternatural multiplication takes place, they prove extremely injurious; and many rare and valuable plants also in the open ground of our botanical gardens fall victims to these general depredators. "Seeing, therefore," says that writer, "that our necessaries, as well as luxuries of life, are so materially affected by the insects of this genus, an attempt to avert some curious and important facts relative to their history, and to make them more generally known, will not, we trust, be unacceptable. Such inquiries may possibly lead to the means of obviating the injuries they occasion; and if they fail in this, they may tend at least to correct the erroneous notions entertained of blights, not by the vulgar and illiterate merely, but even by persons of education, who may be frequently heard to maintain, that the insects are brought by the east winds; that they attack none but sickly plants; with other notions, all as fallacious in fact as unphilosophical in principle."

In the course of this long but ingenious paper, Mr. Curtis proves, in a satisfactory manner, the truth of his preliminary remarks; and, by a series of experiments, which are necissarily beyond our limits to detail, has discovered some peculiarities in their economy deserving notice; we shall conclude with a brief survey of those most interesting, and refer the more inquisitive reader to the paper at length, in the Transactions of the Society for 1802.

Loculæ and caterpillars are furnished with strong jaws, by means of which they crop and wholly devour the foliage of plants. The aphis destroys them in a different way. Instead of jaws and teeth, it is provided with a hollow-pointed proboscis, which, when the animal is not feeding, folds under the breast. With this instrument it pierces the plant, and imbibles its juices to support itself; but these juices being essential to the life of the plant, it follows, that when they are drawn off, the plant, exhausted, flags and perishes, being, in fact, literally bled to death by these leech-like animalculæ. Yet so tenacious of life are plants in a healthy state, that, in general, they only fall victims to the continued attacks of these insects when in immense numbers. But it most commonly happens, that if they do not wholly destroy a plant, they deface it; and a small number of aphides are sufficient to produce this effect.

Aphides are described by the best authors as being generally oviparous and viviparous at different periods of the same year. Mr. Curtis found, from the 24th of September to the 6th of December following, during which time Fahrenheit's thermometer had been as low as 29, that the aphis fulcis was constantly viviparous; though, from the inclemency of the weather, very few of these insects, at the period last mentioned, remained on the trees; and those few were soon after entirely cut off by the unusual cold that took place, the thermometer falling to four degrees below 0. Other aphides are oviparous or viviparous, according to the temperature of the air to which they are exposed. In very cold weather they are oviparous, for this obvious reason, that the eggs are capable of huffing cold more powerfully than the young. On the 22d of November, in the same year, he found a considerable number of eggs, which had been deposited in some auricula plants by a green aphis, which infests plants very commonly, while the same species on a geranium within doors produced young. In mild winters, in the month of January, the same species of aphis has been observed in great numbers on various species of primula without doors, and all the females viviparous. Thence, and some preceding facts, prove, that all aphides are not oviparous and viviparous at the same season, but that some may be wholly viviparous; that all such as are both oviparous and viviparous do not lay eggs toward the middle of autumn, nor at all during the winter, unless a certain degree of cold takes place.

In the quality of the excrement voided by these insects, there is something wonderfully extraordinary. Were a person accidentally to take up a book, in which it is gravely affected, that in some countries there were certain animals which voided liquid sugar, he would lay it down, regarding it as a fabulous tale, calculated to impose on the credulity of the ignorant; and yet such is literally the truth. Mr. Curtis collected some on a piece of writing paper from a brood of the aphis fulcis, and found it to be as sweet as sugar; and observes, that were it not for the wasps, ants, flies, and other insects that devour it as quickly as it is produced, it might, no doubt, be collected in considerable quantities; and by the procists used with other saccharine juices, might be converted into the choicest sugar or sugar-candy. The sweetness of this excrementitious fuliture, the glossy appearance it gave the leaves it fell upon, and the swarms of insects this matter attracts, led him to imagine the honey-dew of plants was no other than this secretion, which further observation has since fully confirmed; and not, as its name implies, a sweet fuliture falling from the atmosphere. On this opinion it is further remarked, that it neither falls from the atmosphere, nor is it of the plant itself, as is easily demonstrated. If it fell from the atmosphere, it would cover every thing it fell upon indiscriminately, whereas we never find it but on certain living plants and trees. We find it also on plants in flowers and green-houses covered with glasses. If it exuded from the plant, it would appear on all the leaves generally and uniformly; whereas its appearance is extremely irregular, not alike on any two leaves of the same tree or plant, some having none of it, and others being covered with it but partially. As far as the writer's observation extended, there never exists any honey-dew but where there are aphides; though such often pafs unnoticed, being laid on the under-side of the leaf; and wherever honey-dew is observable upon a leaf, aphides will be found on the under-side of the leaf or leaves immediately above it, and under no other circumstance whatever. If by accident any thing should intervene between the aphides and the leaf next beneath them, there will be no honey-dew on that leaf: and thus he conceives it is incontrovertibly proved that aphides are the true and only source of honey-dew.

Though no mode of destroying aphides will perhaps ever be devised on a large scale, in the open air, by artificial means, it can be accomplished most effectually when they infest plants in flowers, green houses, and frames, or any situation in which they can be enclosed for a certain time in clouds of smoke. Powders or liquids, however fatal to aphides, must ever be ineffectual, from the trouble and difficulty of applying them, so that they may come in contact with the insects. The smoke of common vegetables, however powerful, is found inadequate to their destruction, and the only one yet employed with success is that of tobacco.
A H

bacca. They may for hours, or even a whole day, be
immersed in water, and when taken out some will be liv-
ing, and many of the rest will revive afterwards; they re-
main affixed to the plant in water as before, and their bod-
ies assume a luminous appearance from the minute bubbles
of air which issue from them. One experiment is men-
tioned, in which a green-house plant, with the pot it grew
in, was immersed in the evening into a tub of water, and
in the morning they appeared alive and well. When they are
taken from the plant on which they feed, and are kept
under water, they do not survive long; their struggling
in that case perhaps exhausts them sooner. It appears there-
fore, upon the whole, that they are extremely tenacious
of life, and that wet is not so hurtful to them as might na-
turally be imagined.

Some curious remarks on the opinions that prevail re-
specting blights conclude the paper. Blights, he observes,
originate from a variety of causes, the chief of which are un-
favourable weather, and insects. Some imagine that the in-
sects which are the cause of them are brought from a dis-
tance by easterly winds; and others, that they attach them-
selves to none but sickly plants; neither of which, so far as
the writer has observed, are founded in fact; and he is in-
duced to believe the aphides are by far the most general cause
of the disfigurements distinguished by the name of blights.

APLASTUM, from a and phæus, frangibile, in the An-
cient Navigation, a wooden instrument, shaped like a plume
of feathers, fastened on the groove of a swan's neck used
by the ancient Greeks in the heads of their ships.

The aphantum had much the same office and effect in a
ship that the crest had on a helmet. It seems also to have
had this further use, viz. by the waving of a party-coloured
ribbon fastened to it, to indicate from what quarter the
wind blew. The aphantum was the proper ornament of the
head, as the acrotolium of the flern. The Greek aphant-
um answered to, and was probably the origin of the Latin
aplatische.

APHEL, in Ancient Geography, a town of Asia, in
Chaldæa, situate near the Tigris, where it borders on the
Persian gulf.

APHNEUM, a town of Phrygia, near Cyzicum. Steph.
Byz.

APHNEUS is also a town of Lydia.

APHONIA, in Medicine, the state of a person who is
deprived of voice.

The word is compounded of the privative α, and φωναί
voice, q. d. a loss of speech or voice.

This is rarely an idiopathic affection, and may arise from
a variety of causes; such as cutting the recurrent nerves
which go to the larynx or glottis, where the voice is formed:
or making an aperture into the trachea below the glottis, or
any other mechanical injury to the parts.

Any fit may deprive the patient of the use of the organs
of speech, as epistaxis, apoplexy, paralysis, or hysteria, may be-
cause a come of aphonia.

When a person is suddenly seized with a loss of voice, and
no cause appears, it generally indicates the approach of one
or other of these attacks.

As all voluntary motion depends on the nerves and muf-
cles of the respective organs, so whatever injures those of
the tongue, or any of the other organs subservient to the
formation of the voice, may induce aphonia.

Some other causes have been mentioned by medical writ-
ers, which are only accidentally so; such as the receding of
cutaneous eruptions, inflammation of the tongue and faucets,
episodic affections, worms, fear or joy, a crumb of bread, or
any other extraneous substance sticking in the rima glottidis.

The prognosis will vary with the cause; the most obilinate
cases are those which depend on a paralysis of the state of
the nerves. As hylieria, worms, or extraneous matters, are com-
monly soon removed; so a disease depending on them may be
deemed easily curable.

The general indications of cure are, to restore freedom to
the nervous influence when impended, and integrity to the
organs themselves when wounded or otherwise disabled. The
first indication is answered by the treatment of Paraly.
sis; the second by the practice of surgery. Particular indica-
tions are taken from the cure of those particular disfigurements on which the
aphonia depends, viz. Hystaria, Epilepsia, Worms, Seama, &c. &c., which see.

APHORISM, a maxim, general rule, or principle of a
science; or a brief sentence, comprehending a great deal of
matter in a few words.

The word is derived from ἀφορίζω, ἅ separate, q. d. a choice
or select sentence.

The term is chiefly used in Medicine and Law. We say,
the aphorisms of Hippocrates, of Sanchezus, of Boerhaave,
&c.; aphorisms of the civil law, &c.

APHORISM is used, in Ecclesiastical Writers, for the lefser
excommunication, by which the delinquent is cut off from
the benefit of the sacrament and the prayers of the faithful;
but allowed to bear a part in the rest of the service.

APHORISM is also used for a kind of figure in Rhetoric,
whereby something that has been said is limited and cor-
rected. This is otherwise called diōrismus.

APHORISTIC, something relating to, or partaking of
the nature of aphorismus.

The aphoristic method bands contradistinguishing from
the systematic, or methodical, as also from the diësodius, or di-
fusive way.

The aphoristic method had great advantages, as containing
much matter in a small compass; sentiments are here almost
as numerous as expressions; and doctrines may be counted
by phrases. Every thing is close and pertinent, allowing no
room for useless discussions, or for languishing connections
and transitions; there is hardly a word to be lost.

APHORMION, in Ancient Geography, a place of Bœot-
ia, dependent upon Thetia, which, according to Steph.
Byz. was the birth-place of Typhus, who superintended the
construction of the ship Argo.

APHOSIATIN, in Geography, a part of Romelia in
European Turkey, near the Black Sea, and not far from
Clanfantine to the north.

APPHADENA, a town of Asia in Mesopotamia,
near the Euphrates.

APHRACI, from α, and φωνας, inclosed, in the An-
cient Military Art, denote open vessels, without decks or
hatches, furnished only at head and stern with cross planks,
whereon the men float to fight.

The apfront, or open vessels, wind contraeoistinguishing from
catophracis, or covered ones.

APHRODISIA, in Antiquity, festivals in honour of the
goddess Adonis, or Venus. There were several of these
between allies observed with lascivious ceremonies in divers cities of
Greece; the most remarkable was that at Cyprus, first
instituted by Cinnyrus, out of whose family certain priests
of Venus were elected, and for that reason named Kowghus. At
this solemnity several mysterious rites were practised: all
who were initiated to them offered a piece of money to Venus
as an alms, and received as a token of the goddess's favour,
a measure of salt, and a φαλαλος; the former, because salt is a
concretion of sea-water, to which Venus was thought to
owe her birth; the latter, because the was the goddess of
wantonness.
Aphrodite. In *Entomology*, a species of *Papilio* in the section *Nymph.* The wings are dentated, tubulous, with black spots; the underside of the posterior pair is brown, with 24 silver-coloured spots. Fabricius and Gmelin. This is a native of South America.

Aphrodite, in *Natural History*, a name given to some authors to the small species of *anamys* or. See *Gemma Veneris*.

Aphrodite, in *Ancient Geography*, the name of an island in the Arabian gulf, near Egypt, according to Ptolemy. M. d'Anville supposes that it was the island called Susiane-al-Belri.

**Aphroditoides**, in *Natural History*, a species of *Nereis* found in the Greenland seas. The body is deep-striated, without furrows; and the peduncles furnished with a cirrus and papilla. Gmelin & Fabr. The head is white, eyes and jaws black, tentaculiform, two cirri in front, body pellicul; anterior part ochraceous yellow, the rest reddish, with two ferruginous lines along the abdomen. Sometimes, though rarely, it is green, with the ferruginous lines on the abdomen, and transverse reddish lines upon the back.

**Aphroditoides**, a species of *Terebella*, inhabits the Indian ocean; it is about a foot and an half in length, and consists of about 148 segments; the peduncles are fleecy, furnished with a cirrus, and two cirri at the head. The specific character is, body round, and gradually tapering towards the posterior extremity; beneath rather depressed, with an oblong furrow; the first eight segments dentate of branchiacthe, thence the three next simple, and the rest becoming gradually larger, and pinnated on each side. Gmelin, &c. This is *Nereis* aphroditoides of Pall. nov. act. Petrop. &c.

**Aphroditopolis**, in *Ancient Geography*, the name given by Pliny and Ptolemy, to two, and, after them, by M. d'Anville, to three towns in Egypt; and each of the two former the capital of a particular name. *Aphroditopolis*, in the Heptanomia, upon the right of the Nile, at some distance south from Memphis, is the capital of the 36th nome; and M. d'Anville supposes it to have been succeeded by Ascalon; but Father Siccard imagines that it is *Bersabel*, a small place at a little distance to the south-west.

**Aphroditopolis** is also a town of Upper Egypt, and the capital of the 42d nome. This town lay to the left of the Nile, a little north of Ptolemais; and it seems to have been that which Pliny calls *Oppidum Veneta*. M. d'Anville supposes that *Ascalon* now occupies its situation.

**Aphroditopolis** belonged also to the name of Hermonithites; and was situated on the left of the Nile, at a small distance north from Latopolis. M. d'Anville assigns it to the place where Asfan, or Asfoum, now stands.

**Aphroditopolites**, a name of Egypt, the metropolis of which is called by Ptolemy *Crocodilorum civitas*. **Aphrogala**, from αργος, *white*, and γαλας, *milk*, in the *Ancient Physic*, denotes a kind of white cream, or milk, agitated till it be converted wholly into froth.
APHTHAE.

The aphthae are directed by Galen, as proper against hot disorders of the stomach.

APHROTURM, in the Ancient Physic, denotes the spume or froth of him; and seems to amount to the same with aphthurem.

APHRODITE. See Nitrum.

APHROSELENOSS, according to Ancient Naturalists, a derivative to the sappho, or the bottom of the throat.

APHTHAE, in Surgery, from σφόνζ, incision, the trench.

By this term are denoted clear, white, pale, livid, painful spots, which appear in the mouth, fancies, and neighbouring parts, of various sizes and shapes; and which generally raise themselves into real ulcerations, filled with a clear or turbid yellow or bluish fluid. They attack every part of the cavity of the mouth, the cheeks, pharynx, oesophagus, stomach, and intestines; sometimes also they are found in the nostrils. Generally they appear at first in small white points, which are always preceded by a very sensible degree of heat in the mouth and breath of the patient, which gradually increases in size; and sometimes in the space of a few minutes, or more slowly, spread themselves farther, become elevated, and form ulcerations, which are either round or flattish, and with either single, or in groups. In some cases they soon burst open, or separate themselves at their base; and the contained fluid is either quickly discharged, or is absorbed; and they collage, or wither away, as it were, and the detached cuticle forms wrinkled white spots, which frequently occupy a larger extent of surface. Sometimes they remain longer elevated, the contained fluid grows thick, and they fall off in flakes of a darker yellow colour. Sometimes aphthae are not of a white colour; for when the morbid matter has long continued its ravages in the syalem before affluence is procured, or if the aphthae have not been discovered early enough, they are found sometimes ah-coloured, sometimes lead-coloured, blue, and black, according as either the vitiated humours, or the bottom of the sore, appears through the skin.

After a shorter or longer space of time, they generally detach themselves and fall off, upon which a moilure is seen to cover the ulcerated parts. When this becomes greatly accumulated, a saltation is commonly produced. If the parts do not soon become covered with a new skin, they begin to bleed, and to occasion acute pain. This separation sometimes takes place within a few hours, generally within twelve; sometimes also the floughs remain for several days, and do not fall off at the same time, but one after the other, in different parts.

Frequently they disappear, but as frequently return again, according as there is a larger or smaller quantity of morbid matter which deposits itself in the mouth, and irritates it. Sometimes the internal surface of the mouth becomes covered with a perfectly white crust, produced by the coalescence of the separate aphthae, whence a variety of inconveniences are produced; for the symptoms of the disease are exacerbated, and at length putrefaction and gangrene supervene, which takes place the sooner if there be a fever at the same time present. In this state the patient can take no nourishment, as he cannot swallow even liquids without intolerable pain and anxiety; and should it be possible to get any thing down, it does not contribute to the nourishment of the body, so that the strength of the body vanes away, and death may at length terminate the sufferings of the patient.

Frequently the aphthae appear as a primary or idiopathic disease; but more commonly they are symptomatic, or concomitants of other diseases. Some have also affected, that they may be critical, which however is doubtful; or, if they ever are so, it is only with adults. In the idiopathic aphthae, the following symptoms are observed; they appear in children from a week to a fortnight old, sometimes also later. The infant becomes uneasy, sometimes sleeps much, sometimes little; he cries a great deal: his voice grows feeble, shrill, and hoarse; his respiration is very quick and difficult; his pulse uncommonly quick and small, with symptoms of fermenting in his mouth, tongue, and the other neighbouring parts, are dry and very hot; this heat extends itself over the whole body without perforation, and the patient becomes languid, feeble, and spiritless. The infant is very eager for the breath, where the mother feels an intolerable heat; but he is unable to suck, on account of the pain excited by the pressure of the nipple, and the exertion of the mufcles requisite in the action of sucking; in consequence of which many infants die for want of nourishment, even before the thrush breaks out.

When aphthae appear as symptoms or concomitants of other diseases, the febrile symptoms become exacerbated; and they are very apt to appear when the patient has been afflicted with a diarrhœa at the very commencement of the febrile attack. The patient is moreover troubled with continual nausea, a loathing of food and drink, and sometimes also with vomiting. He feels a sense of anxiety and weight at the pit of the stomach and in the thorax, especially if copious and frequent evacuations have preceded. He feels a lefion as if some hard substance stuck in his throat, especially when he swallows any liquid. If evacuations have been administered, and have produced a discharge of much mucus, bile, and other impurities, and the above mentioned symptoms continue, aphthæ certainly make their appearance. Finally, they are frequently prognosticated by a dulness and stupiditiy of the senses and understanding, during which the patient is much inclined to sleep, but his sleep is attended with a great deal of dreaming.

It is necessary that the physician or surgeon should be well acquainted with these symptoms, from which the appearance of aphthæ may be prognosticated; for whether they be idiopathic or symptomatic, they are always an unfavourable occurrence, and seldom unattended with danger.

When aphthæ actually make their appearance, they are attended besides with the following symptoms; shortly before they break out, or when they do break out, a lefion of heat and intolerable burning is felt in the mouth. The patient feels as if the whole cavity of his mouth were excoriated or ulcerated; and the slightest touch excites the most acute pain in it. If, at the same time the voice becomes hoarse, with a hollow tone, the fever and uneasiness increase, hiccup supervenes, the tongue becomes very red, with a sense of pain deep in the throat, or about the upper orifice of the stomach, we may conclude with certainty that aphthæ have already been formed in the stomach and oesophagus, which will gradually spread themselves higher up, till they appear also in the fauces. These excite indigulations and vomiting, especially with infants. The evacuations by ileus are very copious; and infants void, together with the other excretions, lamps of undigested milk. With this copious and preternatural alvine evacuation, fever is often combined during several days. As soon as the aphthæ have spread themselves over the whole internal surface of the mouth, they render malnutrition, inflammation, and deglutition extremely difficult to the infant, who therefore continually cries; and when he yawns, he is always affected with violent griping in the belly, which is attended with a rumbling noise. When the aphthæ have completely broke out, they are accompanied also with a variety of symptoms of different kinds, of which we are to form our judgment, partly according to the colour of the aphthæ,
A P H I T H E.

aphthe, partly according to the symptoms and course of the disease, of which they are symptoms or concomitants.

The morbid matter by which the aphthe are produced, is to be sought almost solely in the prime vix, where it is formed, particularly with new-born infants, when the first indifferently necessary purgation has been neglected, and also when in any other manner, either by the improper diet of the infant, or also by that of the mother or nurse, occasion has been given to the production of impurities in the prime vix. It is prejudicial to suffer the infant to sleep on the breast, as he then keeps some of the milk in his mouth, where it easily becomes spoiled.

This disease may also be produced by the infant receiving unwholesome milk. With many infants, therefore, we may prevent the production of aphthes, by frequently cleaning their mouths, soon after birth, in order that none of the mucus may remain in them; by evacuating the contents of their intestines by proper purgatives; and by keeping them, in general, clean, and giving them wholesome nourishment.

In the cure of the aphthe, our first object must be to examine whether they be idiopathic or symptomatic, as each species requires a distinct mode of treatment. The most important general indication of cure, is to endeavour to correct and remove the viscid, acid, and offensive humours. For this purpose we may administer elder-flower tea, demulcent pills, with a little lemonjuice, emulsion of almonds, sweet milk, a dilute decoct of oats or barley, whey, &c. When the infant is affected with the aphthe in his mouth, the mother or nurse should take these remedies; and, at the same time, it will be very beneficial to purge the hands and feet of the infant frequently into warm water, or to apply either liquid or vapour-baths with elder-flowers, and other emollient herbs, wheat, bran, soap, &c. Emollient glisters, composed with the above mentioned substances, are particularly to be recommended, as the requisite remedies may thus be introduced into the body, without doing any violence to the mouth, fauces, and throat of the infant; besides that, this manner of administering remedies is the best adapted for infants, who generally neither can nor will swallow them.

The use of much animal food, and whatever can increase the alkaline tendency of the fluids, must particularly be avoided in the diet of the patient, as the quality of the morbid matter would thereby be increased. On the other hand, fresh air, a clean and warm chamber, frequent cleaning of the body, bodily motion, both with children and adults, the application of acidulous vapours, and other substances that heat or neutralize the alkalies, also fixed air, are to be recommended. The diet of the patient ought in general to be liquid and light, but, at the same time, nourishing, consisting of bread-pouls, barley-broth, fago, &c. Panada, made with bread, honey, and wine, boiled in water, is also a good article of food; but with respect to the wine, we ought to be very cautious, in order that we may not increase the irritation in fevers of an inflammatory nature, and when there is already too much irritation in the sytem. We may administer it more plentifully in diseases of debility and malignant fevers; and the same applies to all aromatic and other stimulant substances.

Our most important object here is to diminish the violence of the fever and the febrile heat. If the fever be an intermittent, cinchona, rad. bened., and other bitter and slightly astringent remedies are proper. In nervous, malignant, or putrid fevers, cinchona, contrayerva, arnicas, camphor, and acidulous substances are indicated. But most frequently the fever is either of the inflammatory kind, or at least it is attended with a considerable degree of febrile heat. In this case we may use warm drinks, a decoction of flor. extract with spicis vitriol, oxyamel simplex, with tamarinds, cream of tartar, or other acidulous substances. Flux, birth, and rub. iod. diluted with water, emulsion of poppy seeds with nitre or sal. aceticell. officin. or also the following composition: R. Aq. flor. sanctun, tisal 3 $j. nitr. depur. $j. fyr. rub. idz., or aceticell. citr. $j. M. D. S. A table-spoonful to be taken every two hours. Many of these remedies may be administered in the form of glysters; inunctions with four whey are also particularly to be recommended.

Finally, we must moderate the heat by means of external applications, of which the most approved are the following. R. borac. venet. gr. xxx. solv. in aq. rub. idz. 3 $j. adde fyr. rub. id. M. D. S. A sponge, a piece of linen, or a brush of lint to be dipped into it, and the mouth cleaned with it. We may also give a tea-spoonful of it every two or three hours internally, with great advantage. We may likewise administer from time to time aq. aceticof, with syrup or honey. Allo: R. spir. vitriol. $j. fyr. violaar. 3 $j. aq. commun. 3 $v. M. D. S. A table-spoonful to be taken every hour by adults, and a tea-spoonful by infants, also to be used for washing the mouth. We may also administer, particularly to young children, an ounce of house-leaf juice (femperovium), with an equal quantity of honey. Or, according to Mr. Starke, R. borac. venet. 3 $j. fyr. moror. 3 $j. fyr. papav. alb. 3 $s. M. D. S. The mouth to be cleaned with a brush dipped in it.

Besides what has been already said, the following directions are particularly to be attended to: as soon as the idiopathic aphthe appear, it will be very useful to administer a purgative, either of rhubarb or mann, with some neutral salt, or magnesia and rhubarb, with infants; but with adults, tamarinds and some neutral salt, or the infusion of fennel. When there are bilious or other impurities in the intestines, an emetic with tart. emet. is administered in a dose proportionate to the age of the patient; or with children, pulf. aurat. antm. or laxative glysters. If the patient already complains of great pain in the throat and oesophagus, or even in the belly, these remedies are altogether inadmissible. In the symptomatic aphthe it depends upon the nature of the primary disease whether it shall be proper to administer any evacuant. Emollient and gently laxative glysters, however, will never do any harm. With these remedies the liquid ones brisk mentioned are to be combined.

When the aphthe have actually made their appearance, the above mentioned draughts and remedies are to be administered; with children, frequent injections should be used, and the mouth washed with emollient decoctions, or with figs and honey of roses, or some other acidulous syrups, applied by means of a brush. But when it is observed that they extend lower down than the fauces, or even already form crusts and excite pain, they must be moistened, softened, and gently irritated. We may then apply to the aphthe a decoction of carrots, or the expressed juice of boiled carrots, with honey of roses, by means of a brush; or we may let the patient swallow a tea-spoonful of this remedy in cafes of internal aphthe. Equally beneficial is also a decoction of the brassica rapa sweetened with sugar, or its expressed juice slightly boiled and sweetened with honey, and its efficacy will be increased if we rub down the peel together with the pulp; we may also use the juice expressed from it after having been roasted, mixed with honey of roses. With these remedies we should frequently wash out the mouth of the patient, or let him use them as gargles; and where there are internal aphthe some of them must be swallowed down.
APHTHEAE.

We may also boil the brassica rapa in veal broth, and let the patient eat it; and he may either drink the broth, or it may be administered in injections. Sem. lin. boiled in water, and mixed with honey of roes, or any other acidulous syrup, as also the compositions with borax, are very serviceable in these cases.

As external remedies we may use those that have just been mentioned with great advantage, as also the following: macerate fage in warm wine, add some honey, and let the patient’s mouth be washed with it; this mixture may be applied to the mouths of infants, even though they Should bleed; after which the mouth is to be washed again, by means of a bruhl, with syrup of mulberries, honey of roes, syrup of quinces, or the juice of four cherries, diluted with an infusion of sage, and two or three drops of the spirit of vitriol; or we may use white vitriol dissolved in barley-water, with the addition of honey of roes; a decoction of roe-leaves with honey has also produced very good effects. The following remedy has likewise been recommended: R. mel. commun. 3j; borac. venet. 3j; alum. ult. 3fs. aq. rofar. 3fs. M. D. S. * To be applied to a bruhl, and the mouth cleaned with it. Finally, when the crults will not separate, we may use the following composition: R. fsp. cochlear. syr. face. etr. pref. 3j; M. For washing the mouth we may use also the decoction of Peruvian bark.

When the apthae at first appear discoloured and gangrenous, or become so in the course of time, we should use the following composition: R. terr. catech. 3jij. coq. in aq. calc. lbi. ad rem. 3viiij. colat. add. facch. saturn. 3fs. mel. rofar. 3j; M. D. S. A table-spoonful to be taken every hour, held for some time in the mouth, and swallowed down slowly. Cinchona administered internally, in injections, and mixed with honey of roes, is likewise recommended. The same mode of treatment is to be pursued with the symptomat apthae.

When the apthae slough off, and the parts become raw, fore, bloody, and painful, the following mucilaginous and gently astringent remedies are useful: mucilag. cydon. with aq. salv. or H. aq. rofar. 3j; vitell. ovum. N° ii. fyr. papav. alb. 3j; crem. tart. 3fs. M. Allo borax with syrup of poppies, emulsion of poppy seeds, and even opium triturated with mucilage of quinces, and diluted with water, may be used with advantage. But if the parts appear discoloured, or the pain in general has abated, we may administer the remedies mentioned just before, as they are of a more astringent nature, and tend to check inflammation and gangrene; allo whey with vinegar, the juice of lemons and oranges, or oxymel; a decoction of hb. agrimon. & mel. rofar. is recommended, to which acetof. may be added; allo Peruvian bark.

When the apthae have sloughed off, both in the mouth and other parts, which we may know to be the case when any of them are voided by food; when a sufficient quantity of strengthening remedies has been employed, which may be known by the abatement of the fever, and the absence of morbid matter in the humours; purgatives, and particularly those of a mucilaginous and tonic nature, are necessary; such as tamarinds, manna, rhubarb, or glycyrrhiza made with these substances, in order that any impurities that may still remain in the stomach and intestines may completely be evacuated.

Sometimes, however, the apthae, particularly the symptonum, produce other peculiar symptoms; as in children, when they alleviate the other symptoms of the disea as soon as they make their appearance, in which case we must endeavour to promote the eruption by means of the above-mentioned decoction of brassica rapa, and other similar rem- 
edies. When the fever becomes of a malignant and putrid nature, cinchona, ferentinaria, contrayerva, muflard with some fp. salis and mel. rofar. also butter-milk, are the proper medicines. When they are of a febrile or venereal nature, these morbid poisons must be counteracted by the appropriate remedies.

When the bowels are obstipated, we must loosen them by means of emollient glyders with chamomile flowers, decoction of ows, soap, or oil of almonds. Frequently a violent and exhausting diarrhea comes on, which is to be checked by mucilaginous medicines, such as corn. cerv. gum arabic dissolved in barley water, with the addition of a quantity of saffron; the same end may also be obtained by means of opium, laud. hq. or tinct. opii and fyr. paffav. which the mother or nurse may also take; and some time after having taken it give the infant breast. Mucilaginous glyders with teriacus and soap are sometimes very effectual.

When a troublesome and pernicious salivation comes on, it must first be treated with mucilaginous and gently astringent remedies, such as mucilag. cydon. aq. salv. &c. and afterwards with stronger, such as a decoction of rad. tormentill. herb. agrimon. or granate with honey of roes.

The hiccup, with which patients are sometimes attacked, frequently ceases spontaneously; however, nourishing mucilaginous remedies, combined with a little opium, will contribute much to remove it.

With a view to relieve the patient’s strength, mild, light, and mucilaginous substances must be given him, in order that the stomach and bowels may again become used to food; e. g. barley-water, fago, faic, jelly, and even fengeal. When the stomach has become somewhat accustomed to the reception of these substances, the patient may gradually return to his former diet.

With adults, apthae occur in various kinds of fever, but particularly in those annual fevers which commence with diarrhoea or dysentery, when the impurities of the bowels have not only not been evacuated, but have been detained by the medicines that have been used. Such apthae have sometimes been observed to be epidemic; and they frequently appear in hectic fevers. The prognosis depends upon the nature of the disease which accompanies the apthae, and the strength of the patient. It is an unfavourable circumstance when, after the apthae have made their appearance, the fever returns, the pulse grows small and weak, and the appetite is not restored.

This species of apthae is to be treated like the reit; but when they are accompanied with a putrid fever, we must be very cautious with regard to the use of evacuating remedies; antifeptic and other appropriate remedies should rather be administered, and those combined with the former. When the apthae have seattered, acrid and too stimulant medicines and food, as also cold air and drink, should be avoided; let the former should excite inflammation and suppuration in the stomach and bowels, and the latter a new swelling of the mouth, and the most dangerous species of angina.

APHTHARTODCETAE, in Ecclesiastical History, a sect, sworn enemies to the council of Chalcedon.

The name is derived from aφθαρτος, incorruptible, and δεός, I imagine; and was given them, because they imagined the body of Jesus Christ was incorruptible and impenetrable, and not capable of death. They arose among the Eutychians, and made their first appearance in 525.

APTHONIUS, in Biography, a rhetorician of the third century, wrote a work entitled “Progymnasmata Rhetorica,” or Rhetorical Exercises; first published in Greek by Aldus, at Venice, in 1508; afterwards with Her-
A PHYLLANTHES, in Botany, (άφιλλος; δαντίς), a flower without leaves. Linn. gen. 406. Schreb. 576. Jull. 44. Clus. catharum monegnia; nat. order of tritox, abed, sumti, Juff.; Gen. character, cal. gyno, mesofall, fanceolate, several, imbricate; cor. petals fixi, ovate, spreading; claw flanged, erect, converging into a tube; flask, flaments tunicous, shorter than the corolla, inserted into the throat, anthers oblong; pil. germ superior, three-cornered, turbinate; filly tube, of the length of the flaments; figma three, oblong; per. capsule, turbinate, triangular, trilocular; seeds ovate. Species 1, aphyllantas montpellizens; root creeping; cens naked, simple, furnished on the base with sheaths like the root; glume two-valved, two-flowered. It grows wild near Montpellier, in barren and rocky places. This plant differs solely from the root in having a corolla.

APHYLLON. See OZOBANCHE.

APHYLLUS, formed of α, priv. and ουλός, a leaf, denotes leaflets.

APHYTELA, a plant having neither root, stem, nor leaves (from α, priv. and φυτία). Linn. gen. Schreb. 1104. Ame. Acad. 8. 312. Spach, pl. 48. Hydroca, Thunb. Art. Holm. 1775. 69. Clus. monadophyllo trimestrié. Generic character. cal. perianth monophyllous, feminiad, funncl-shaped, large, flabby, erect, permanent; corolla, united parts of three petals, growing to the divisions of the calyx; flask, flaments connate at bottom; short; anthers, connex; coudate, pistil, germ inferior; flppy, thick, short; figma, triangular, channelled; per. a berry, one-seeded; seeds, numerous, netting. There is one species, viz. Aphytis hydróca, a vegetable without leaves, stem, or root; parasitical, terrellid, consisting of a single fructification, which is four inches over, cecile, concave, succulent; calyx large, with an erect trifid border, white within, fumitoment. The ripe fruit, which is not unpleasant to the smell, is eaten, both raw and roasted, by the Hottentots. Discovered by Thunberg at the Cape of Good Hope.

APHYTELLA, or Aphytis, in Ancient Geography, a town of Thrace in the Pallene, a peninsula south-west of the Thracian gulf. Phutarch relates, that when Lyfander laid siege to this town, Jupiter Ammon appeared to him, and ordered him to abandon it.

APIAN, Peter, in Biography an eminent astronomer and mathematician, called in German Benedicte, was born at Lothlinch in Minisia, and became professor of mathematics at Ingolstadt, in 1524. He wrote several valuable mathematical and astronomical treatises, and enriched astronomy with many inventions and observations. His first work was a treatise on "Cosmography, or Geographical Instruction," which was published in 1530, and several times re-published, particularly by Gemma Frisius. In 1531, he conducted, at Nuremberg, a curious instrument, called from its figure, "Fulmum populim," which showed the hour of the day by the sun's rays, in all parts of the earth, and even the unequal hours of the Jews. In 1534, he published his "Inscriptions astronomic," and in 1542, his "Instrumentum soleum," with 120 problems. In the same year his principal work, intitled "Altronomicon Castrorum," was published at Ingolstadt; and it contains many interesting observations, with the descriptions and divisions of instruments, calculations of eclipses, and the construction of them in plan. In the second part of this work, or the "Meteoroaegnium Planum," he describes the construction and use of an accurate astronomical quadrant, and he has annexed to it observations of five different comets, viz. those of 1531, 1532, 1533, 1538, and 1539, and here he has first shown that the tails of comets are always projected in a direction opposite to the sun. The elements of the comet of 1532 were nearly the same with those of one observed 128 years after, viz. in 1651, by Hevelius and others: hence Dr. Halley inferred that they were the same comet, and it was expected in the beginning of the year 1758. But astronomers, either through an error of Apian, or from some other cause, were disappointed. Apian was also the author of many other works, among which may be numbered the "Epiphanes" from 1534 to 1570; "On Shadows;" "Arithmetical Ceniglogues;" "The Rule of Dofs;" or Algebra demonstrated; "On Grating;" "Almanacs;" "On Conjunctions;" "Books of Eclipse;" "The Works of Polemen, in Greek;" "the Works of Azoph;" an ancient astrologer; "The Works of Gere;" "The Perspectice of Vocelli;" "Of Critical Days, and of the Rainbow;" "A New Altronomical and Geometrical Radius, with various uses of lines and chords;" "Universal Altronomical of Nambume;" "Maps of the World, and of particular Countries," &c. &c. Apian was treated with great respect by the Emperor Charles V., who published several of his works at his own expense, conferred on him the honour of nobility, and presented him with 5000 crowns of gold. Apian, after a life devoted to study and the improvement of science, died at Ingolstadt in 1552. His son Philip, who succeeded him, was also an eminent astronomer, and taught mathematics both at Ingolstadt and Tubingen. He was born in 1531, and died in 1589. He has left a treatise on "Solar dials," and other writings. Tycho has preferred his letter to the Landgrave of Hesse, in which he gives an opinion on the new star that appeared in Cassiopeia, in 1572. Voll. de Scient. Montaia Hist. Mathem. tom. i. p. 625. Hutton's Math. Dict. Nov. Dict. Hitter.

APIARIA, in Entomology, a species of Musca. (Linn.)

The anterior part of the thorax is yellow; abdomen black at the apex: tips of the wings ferruginous. Gmelin. This kind inhabits Italy, and somewhat resembles Musca myladea. The antennae are feathered, front of the head, posterior part of the thorax and abdomen, except the apex, black. Wings obscure. Obf. This is SYRPHUS APIARIUS OF Fabricius. Spec. Inf.

APIARIUS, a species of Atellus; bluish, upper wings red, and three black bands; Gmellin. This is the clerus, with red wings, and three bluish bands of Fabricius; the clerus nigro-violaceus hirutus, &c. of Geoff. Clerus ceruleo-violaceus of Degener; and dermelle apiarius of Schrank. Found in Europe, America, and Siberia.

APIARY,
APIARY, from *apis*, a bee; a garden or place where bees are kept. The ancient as well as modern writers on bees agree in recommending a southern aspect as the most proper for this purpose; as a general rule bee-hives should be placed in situations that are little exposed to the wind, and enjoy as much of the influence of the sun as possible: as wind always retards the bees in their works, while the sun's beams invite it to them. Thus, though it be well known, that bees will thrive well in high and windy situations, a low one is obviously always to be preferred. In the vicinity of the apiary, there should constantly be abundance of flowers, from which the bees may collect their wax and honey. Mr. Donner, a late writer on the management of bees, observes, that they were a choice allowed him where to place his bees; it should be in an airy situation, a hollow glen by the side of a rivulet, surrounded with abundance of turnips in blossom in the spring, meadow and clover in summer, and heath in the latter end of autumn and harvest; with a variety of other garden and wild flowers in their seasons. It is not, however, to be understood from this, that bees will not thrive unless they are placed in such an advantageous situation, as the cornfields, he says, he found for bees have thriven amazingly well in places where they were not within reach of any of the above-mentioned flowers: but although they will do well in most situations, fly far for their food, yet they will thrive far better when situated among or near good pasture, and surrounded with plenty of food, and Mr. Keys properly remarks that the limes should be clear from the droppings of trees and the annoyance of dunghills, long grass and weeds, as by these means insects are bred which are not only destructive to the bees, but which greatly retard them in the preparation of honey. See Bili, and Bee-house.

APIASTIUM, in Botany, the name of two different species of plants with different authors; *Dodonaea* being by it the common baum; and *Apuleius* the black broyony.

APIASTER, in Ornithology, a species of *mecops* found in Europe and Asia. The back is ferruginous; abdomen and tail azure green, the two middle tail feathers long; chin yellow. Linn. Gmel.

This is *mecops galileaenus* of Haflequint, *epida cana* molici of Kramer, guipier of Buffon, Scharghegham of Forcell, and common bee-eater of English writers. Its length is about ten inches, of which the bill is an inch and three-quarters. The pervading colours are green and blue, blending into each other; it has a few white feathers at the base of the upper mandible, and on the forehead a space of blue green, behind this another of green, and then succeeds the chiefnt colour, tinged with green, and becoming paler on the back. From the bill to the back of the head is a black stripe that surrounds the eyes. Under parts of the body blue-green, palet on the belly. Lefter wing-coverts dull green, middle one rufous, and the greater ones an intermediate colour between both green and rufous. The legs are of a reddish brown, and the claws blackish.

It takes the name of bee-eater because those insects are its usual food; but it pursues and devours other kinds, as gnats, flies, and cicadas, on the wing, like the swallow; and at times will eat various kinds of seeds. Ray supposes, from its similarity to the king's-fisher, it may possibly feed on fish. Willoughby tells us on the testimony of Belon, "that its singular elegance invites the boys in the island of Candia, which it inhabits, to hunt for it with cieade, as they do for those greater swallow called swifts, after this manner; bending a pin like a hook, and tying it by the head to the end of a thread, they thrill it through a cieade, (as boys bait a hook with a fly), holding the other end of the thread in their hands; the cieade, so fastened, flies neverthelss in the air, which the mecos spying flies after it with all her force; and catching it swallows pin and all, wherewith the is caught." Will. Orn.

APIASTRA, or American king-flyer. See Alcedo hestorbycha.

APIASTRUM, in Botany, a name given by the ancients to two different plants of such contrary form and qualities, that it is unlucky they should have given occasion of confounding them together, as mistakes about them might be of fatal consequence. The one of these plants was the poenous *water-tresfoot*; which they called spinarium, because of its having leaves that somewhat resembled filagge. The other spinarium is the common garden baum, so called by these writers, from their having observed that the bees were very fond of it.

APICALIS, in Entomology, a species of *phalena*, in form and size resembling *phalena* purpuralis. It is a native of South America, and its specific character is, according to Fabricius, wings deep yellow, with a brown streak, apex oblique purple, with a yellow spot and two white dots on the wings. In the Linnean arrangement, this insect belongs to the palaet feection of the *phalena* genus; Fabricius places it with the geometry.

APICE, in Geography, a town of Italy, in the kingdom of Naples, and Principe Citra; seven miles east-south-east of Benevento.

APICES, SUMMITS, in Botany, the same with ANTHouses.

APICILLIA, in Ancient Geography, a town of Italy, at some distance east of Concordia, in Carca.

APICUS, in Biography, a name rendered infamous by the gluttony and epicureism of three persons at Rome, to whom it belonged. The most notorious of these lived under Titus; and he is recorded as the inventor of several new sauces and delicacies, and as having kept, as it were, a school of gluttony at Rome. Senece and Martial inform us, that he equipped away in the gratifications of the table an hundred million of sesterces, which, computed by Mr. Raper's rule for Imperial money (see Sesterce), amounts to about 8,750,001 l. sterling; and when he found, that, after payment of his debts, he should have but a tenth part of this sum, he poisoned himself for fear of starving. Pliny describes him, in reference to some of the dishes of his invention, as "neptum omnium altissimum gurges," i.e. the deep well or whirlpool of all spendthrifts. Athenæus (Deipnos, lib. iv. p. 168) mentions another Apicus of similar celebrity, who lived about the year of Rome 660, and was the cause of the banishment of Rutulus. The third Apicus lived under Trajan; and having a secret for preserving oysters, he sent some perfectly fresh to the emperor as far as Parthia. A work "De Re culinaria," is extant under the name of Caelius or Caelius Apicus, which is supposed to have been written at a later period. Cretier's Rom. Emp. vol. ii. p. 227 Gen. Diet.

APICUM, in Antiquity, a kind of thread or fillet which the flamen wore, in the heat of summer, in lieu of the apex.

Peius speaks of the apicum as a cover for the apex; but the pallece seems to be corrupt.

APIDANUS, in Entomology, a species of *papilio* found in Surinam. The wings are tailed, blue; the lower ones, beneath brown, variegated with blue; a double golden-coloured spot in the anal angle. Fabricius and Gmelin. Obi. In the Fabianic system it belongs to the hesperia genus; in that of Linnaeus and Gmelin, it stands in the papilio genus. (Section Pleb. rural.) The wings are edged with black and have a ferruginous spot at the base on the under side.

Vol. II.
APIDANUS, Apis, in Geography, a river of European Turkey, which runs into the Pansus, near Larissa.

APICUS, in Entomology, a species of musca, found in Germany. It is hairy and black; thorax at the base, and legs red; the abdomen yellow; tail whitish. Crotch. Blanders. Paper-horn, gibbons, found in decayed trees. Old. Thi belongs to the section that has the hair of the abdomen black. There is likewise another insect in the same section that is called by some; it inhabits Germany; is downy; thorax black with white dots and lines; abdomen yellow with black spots.

APICUS, is also a species of sphinx, in the Linnean style, and so on in that of Linnaeus. The wings are two spots, albinus yellow with black spots; thorax black, with two yellow spots on each side. Lin. Fab. It lies in the leaf-meat in the nicks of willow trees. This is sphinx heptapla of Scopoli; sphinx erabroniiformis, W. Schnidt; and sphinx epithontum, hornet sphinx, Donov. But. Br. Tom. XX.

APILAS, in Ancient Geography, a river of Macedonia, in Thessalia.

APINA, a town of Italy, in Daunia.

APION, in Biography, a learned grammarian and historian, was born at Oasis in Egypt, about the beginning of the Christian era, and probably derived his name from Apis, the Egyptian deity. The character of Apion, whatever might be his talents or learning, was that of a pedant, who took pains in investigating and ascertaining matters of trifling importance. Accordingly he took infinite pains, and had even recourse to magic, in order to discover the country and family of Homer. He valued himself on having discovered that the two first letters of the Iliad, considered numerically, amounted to 48, and he fancied that the poet had used these letters designedly to express the number of books. Hence he also concludes that the opening of the first poem was thus written. His arrogance and ostentation are justly reprehended by Pliny, when he says (Pref. in Nat. Hist.): "A certain grammarian, named Apion, whom Tiberius called the symbol of the world, but who might more properly be styled the drum of public fame, boasted that he conferred immortality on those to whom he dedicated any of his writings; an arrogant boast which time has refuted; for all the works of Apion are lost; and his name only lives in the writings of others."

Having been admitted to the citizenship of Alexandria, whence he obtained the appellation of Alexandrinus, he was sent to Caligula as chief of the embassy which carried complaints to the emperor against the Jews; and, on the other hand, Philo and several other deputes were committed to justify their conduct. Apion executed his charge with much partiality and rigour, and instead of confining himself to the subject in dispute, preferred charges against the Jews of a foreign nature, which merely tended to exasperate the emperor; accumulating them of refuting to consecrate images to him, and to swear by his name. He also wrote an work with the express purpose of justifying his charges, which Josephus refuted in a direct reply "against Apion," which he also designed as an apology for his Jewish antiquities. He wrote, moreover, a learned treatise: "On the Antiquities of Egypt," in five books, one of which is cited by Tatian. In this work he allotted to largely on the pyramids of Egypt, that Pliny (Nat. Hist. lib. xxxvi. c. 12.) mentions him as a principal authority on this subject. He also wrote: "On the luxury of Apicius;" "On the Roman Tongue;" "On the knowledge of metals;" and on "Universal History." Gen. Dict. Nouv. Dict. Hist.

APIS, in Botany, see Glycine and Euphorbia.
"The industry of these little animals (says an ingenious writer), which is as profitable, as curious in itself, will always continue to excite the admiration of the wiser part of mankind." Swammerdam, Remane, Hagtrom, D'Aubenton, Geoffroy, and others, have written their history with great accuracy. Swammerdam, above all, deserves to be read with the greatest attention. To these may be added the names of several later naturalists, who have bestowed uncommon attention upon their economy and manner of life, as will be more fully noticed in the article APIS, a term by which these creatures are better known to the English reader than that of api.

In this general term it must notwithstanding be observed many creatures are included, which, in the opinion of naturalists, do not belong to the same family, or even genus. This is obvious on the slightest inspection of a few of the species so named; but whether, on the other hand, the characters laid down, by most of those naturalists, for ascertaining the different families and genera, are not rather more capricious than just, deserves consideration. It is certain that no two writers have yet agreed upon the same characters by which they are to be divided into sections, and each seems to have had his own system for their arrangement.

Linnæus, to whom a comparatively small number of species was known, contented himself with dividing them into two families, one including those with smooth bodies, or with only a few hairs upon them, APIS propria dicit, and the other bowlnertiaris hirsutifera, with bodies very hairy. These subdivisions have been since found too vague and inapplicable for a number of later discovered species, and even for those Linnæus had described; for, as Scopoli observes, the mode they make in their flight, and the hair on their bodies, increase so gradually, as to render it uncertain where the first family should terminate, or the second commence: and therefore he divides them in a different manner, into two sections, according to the form of the antennæ, which in some were straight, and in others bent, and forming an angle from the base, antennæ rectæ, and antennæ flexuæ; but he then perceived the insufficiency of his own system, as it would unavoidably exclude some species with which he was well acquainted, and for that reason he afterwards divided them into three distinct genera, viz. eucrea, apiis, and nomada.

Geoffroy, after Scopoli, gives this character of his apiis; L'Abeille, antennes brossées, dont le premier membre est très-long. Ailes inférieures plus courtes. Bouche armée de machoires, avec une trompe membraneuse couchee en defous. Aiguillon simple et en pointe. Ventre attaché au procorit par un pédicule court. Trois petits yeux biffes. Corps velu. And these are divided into two families. Familie 1. Abeilles proprement dites. Corpore villoso. Familie 2: Abeilles—bournons. Corpore hirsutifero. These characters differ only in one exception from the vespa genus of the same author, in which, instead of the body being hairy or downy, it is glabrous.

Dytter divides the apes into two genera, apis and nomada: the first he defines, antennæ rectæ atque articulo primo longiori; os dentibus et rotro flexui fractio; et utrinque pictus rostrum; abdomen thoraci patulo brevi adhesum; aculeus punctarius in abdomen recessus; occuli recticulati ovales integri. And the second, antennæ clavatae vel flexuæ articulis duodecim; os dentibus et rotro procoriato vaginae car- tilagineae circulari; et utrinque; abdomen petiolatum; aculeus punctarius in abdomen recessus; occuli recticulati ovales uniti.

The Fabrician divisions of the apes are these: HEMEEX, HYLAEUS, ANDREAE, APIS, EUCERA, AND NOMADA. The character of his genus APIS is, os linguæ, inflexa, quinquifida; palpi bivittati; antennæ dilatatorum. End. Syll. (Toung inflected, five-ckist: feelers very short; antennæ dilatatorum.)

Gmelin, we think, should rather he commenced than confirmed for the cautious manner in which he has adapted the improvements of the latter writer, to that of his great master, Linnæus; for had he ventured to divide the genera, and destroy the distinctions Linnæus had laid down, instead of endeavoring to reduce the newly discovered species to his arrangement, he would have incurred more blame than he has for avoiding it. Some may perhaps think he has been cautious to a fault, and not made those alterations that are absolutely requisite; the arrangement unquestionably demands some amendment.

Roemer, in his "Genera infectorum Linnæi et Fabricii iconibus illustrata," gives another definition of apis, to which it is objected, he introduces more characters than are needful; some of them belonging only to certain families, are consequently not general distinctions. APIS as maxilius dentatis, atque proboscidibus inflexis, vaginis dubius vivalibus lingua incommunibus. Capite triangulaire, fronte plana, flexuæ. Antenne longae pedata, primo articulo recto, genere longiore, Occp plane, in omni secta. Acelus punctatorius, reconditus, retraitatis, ferretus, feminis et neutra. Tarji quique articulis, primo longitudine tibio, comperto, cilia, transversa fulcato. P. 28.

M. Latreille, about six years since, published a work at Paris, intitled, "Despecs des caractères généraux des insectes, divisé dans un ordre naturel," in which the characters are taken from the antennæ, labium placer, mandibulae, labia, maxilla, tubus, et palpi. The APIS, which, like Fabricius, this writer places between nomada and eucrea, is thus briefly described; APIS, langue de trois pieces. (Organes de la nutrition plus petits dans les males.)

The latest treatise on APIS is that of the Rev. Wm. Kirby, entitled "Monographia Apum Angliae," a book we shall advert to more fully hereafter. It is an attempt to divide into their natural genera and families such species of the Linnæan genus APIS as have been discovered in England; but the introductory and collateral remarks take a wider range. By way of illustration, these include many observations on the class hymenoptera, to which they belong; and a comparative view of the exotic species analogous to those he describes. Mr. Kirby first reviews the several characters of the genera into which different authors have divided apes, and after pointing out imperfections in each, proceeds to offer an arrangement altogether different from either.


After laying these characters of the two genera MELITTA, and APIS, Mr. Kirby proceeds to mention the distinctions which divide them into families; in which his aim, as he observes, has not been so much to fix upon artificial characters,
be no difficulty; and perhaps there can exist but one objection to his mode of arrangement, and that arises from the difficulty in some instances of perceiving them. All his descriptions were taken, as he himself says, from insects viewed under a lens; an advantage no doubt to him in defining these characters with fidelity, but which at once implies that they are minute, and the lamentable errors he points out by that means in the observations of his predecessors on those parts, prove sufficiently they are ambiguous also. Every naturalist will blame Fabricius for having taken his characters too frequently from the mouth, _Insectorum Cetraria_, and other minute and complicated parts; because, except in recent specimens, it is difficult, nay often impossible to ascertain his distinctions of genera and families, without injuring or destroying the very parts he describes, and frequently not then. Mr. Kirby has, we may believe, endeavoured to avoid this error as far as the subject would permit; and we must only regret that in such able hands, some characters less complicated and minute than those sometimes adopted by him, could not have been found for the arrangement of this curious tribe of creatures.

**Apis**, in Geography, a town of Egypt, on the banks of the lake Maricaus, not far south from March. It is mentioned by Herodotus; and Pliny says, it is 62 miles from Parastomus. South of this town, and at some distance from the sea, was a mountain of the same name.

**Apis** was also, according to the Scholiast of Apollonius, a small island near that of Crete.

**Apis**, in Mythology, a symbolical deity, worshipped by the Egyptians in the whole country, and particularly at Memphis. It was an ox, having certain exterior marks, in which animal the soul of the great Osiris was supposed to subsist. This animal was preferred to others, as being the symbol of agriculture, which Osiris had found out, and to the improvement of which he was zealously devoted. He was so famous, that all who visited Egypt had the curiosity to see him, and to render him respect and homage. Alexander conducted his army to Memphis, and according to Arrian, sacrificed to all the gods, and more especially to **Apis**. Pliny says, that when Germanicus was in the camp, he consulted **Apis**; and the same curiosity which induced Augustus to visit Memphis, induced Titus, Adrian, and Septimius Severus, to follow his example. **Apis** was an object of worship, not merely on account of his divinity, but because he was consecrated in a peculiar manner to the sun and moon; that is, to Osiris and Isis. Suidas and Ammianus Marcellinus mention his consecration to the moon, and Porphyry expressly says, that this animal bore the characteristic signs of that celestial luminaries. The marks or characters, by which this sacred bull was distinguished from others of the same species, were, his black colour, a white square mark upon his forehead, the figure of an eagle on his back, a lump under his tongue resembling a beetle, and a white spot in the form of a crescent on his right side. These marks were obviously the contrivance of the priests, who secretly brought up the calf that was intended for the **Apis**. This sacred animal was not produced by the ordinary laws of generation. The Egyptians averted his birth to celestial fire; and, as Plutarch informs us, the priests pretended that the moon diffused a generative influence; and that, as soon as the calf to whom it was imparted took the bull, the conceived an **Apis**. When a calf was produced in these circumstances, and with the appropriate marks, the priests announced to the people the birth of **Apis**. According to, says Zelius (de Anim. lib. xi.), they built a temple to the new god, facing the east, in pursuance of the order of Mercury; and nourished
nourished the young calf with milk for four months. At the close of this period, and at the time of the new moon, the priests repaired to his habitation, and saluted him with the name of Apis. He was then placed in a vessel magnificently decorated, covered with rich tapestry and replete with gold, and conducted to Nilopolis, a city of the Nile, with hymns and perfumes. Here they kept him for 49 days, and suffered only women to visit and examine him. After the inauguration of the god in this city, he was conveyed to Memphis with the same retinue of priests, followed by a great number of boats sumptuously adorned. From this time he became sacred to all the world. He was superbly lodged, and the place where he lay was mythically called “the bed.” The edifice in which he was kept, and which is particularly described by Strabo (lib. xvii.), was situated near the temple of Vulcan; in a court of which he was occasionally presented to gratify the curiosity of strangers; and he might be seen at all times through a window; but it was the office of the priests to produce him to public view. Once a year, say Pliny, Solinus and Ammianus, they presented a heifer to him, which they killed on the same day. This bull, to which supernatural knowledge was ascribed, is said by the priests to have predicted future events by certain signs and motions, which they interpreted according to their own fancy. They say (lib. viii.), that he had two temples called “beds,” which served as an asylum to the people. When they came to consult him, if he entered into one of those, the omen was favourable; but if he passed into the other, unpropitious. He also gave answers to individuals, by taking food from their hands; and Ammianus says, that he refused that which was offered him by Germans; and that this unfortunate victim of the jealousy of Tiberius was soon after poisoned. The worship that was offered to this deity was very solemn. The people assembled to offer sacrifices to him, and oxen were selected for the victims on this occasion. In every part of Egypt feasts were consecrated in honour of him, and particularly in honour of his birth: they were called “Theophania,” the apprehension of God, and lasted seven days. “What festivals!” (says Albinus) “what sacrifices take place in Egypt at the commencement of the inundation! At this time all the people celebrate the birth of Apis. It would be tedious to describe the dances, the rejoicings, the shows, the banquets, to which the Egyptians abandon themselves on this occasion, and impossible to express the intoxication of joy which breaks forth in all the towns of the kingdom.”

During the seven days in which the priests of Memphis celebrate the birth of Apis” (says Ammianus), “the crocodiles forget their natural ferocity, become gentle, and do no injury.” This sacred bull, however honoured, had a fixed term assigned to his life; at the termination of 25 years, the priests drowned him in the Nile; and as Pliny says, in the fountain of the priests. This number was the product of five and itself; and gave the number of the letters of the Egyptian alphabet, as well as the age of Apis: and this number marked a period of the sun and moon, to which luminaries the bull was consecrated. Hence it has been inferred, that Apis was the tutelary divinity of the cultivated form given to the solar year, which was to consist invariably of 365 days, and of the cycle of 25 years, discovered at the same time. “Nor can it be doubted,” says Savary (Letters, vol. ii. p. 472.), “that he had a marked relation to the dwelling of the Nile, for it is testified by a great number of historians. The new moon which followed the summer solstice was the aera of this phenomenon.” The crescent on the right side of Apis indicated, according to Albinus, the commencement of the inundation. “If Apis,” continues Savary, “possessed the characteristic signs which proved his divine origin, he promised fertility and abundance of the fruits of the earth. It seems demonstrable, therefore, that this sacred bull, the guardian of the solar year of 365 days, was also regarded as the genius who presided over the overflowing of the river. The priests, by fixing the course of his life to 25 years, and by making the initiation of a new Apis conform with the renewal of the period now mentioned, had probably perceived, as the result of long meteorological observations, that this revolution always brought about abundant feasts. Nothing was better calculated to procure a favourable reception of this emblematical divinity from the people, since his birth was a prelude to that of a happy inundation, and of all the treasures of teeming nature.” The name Apis in the Coptic language signifies number, and seems to have referred to the number of cubits which marked the increase of the Nile, that was most advantageous for the fertility of Egypt.

When Apis died, he was embalmed and privately deposited in the subterraneous cavern destined for this purpose. If he died a natural death before the expiration of 25 years, the priests publicly proclaimed his death, and solemnly conveyed his body to the temple of Serapis at Memphis. Strangers were forbidden to approach the temple, and the priests entered it only when Apis was interred. It was then, says Plutarch, that they opened the gates called Λείχε and Κούτυ (of oblivion and lamentation), which are said to have made a harsh and piercing sound. On occasion of the death of Apis, Egypt conferred upon the priests of Apis, the right of mourning, and lamentation of those who bewailed it, and the whole country put on mourning. To this purpose Plutarch says, (Eleg. i. 8.)

“Te canit atque pulte facies miratur Olibrin,
Barbara, Memphiten plangere docta bove.”

Lucian also represents this circumstance in his usual pleasanter manner. “When Apis dies, is there any one so enamoured of his long hair as not immediately to cut it off, or to display on his bald head the symptoms of his sorrow?” This distress and mourning continued till the people had obtained another Apis. Darius Hyllapis, being at Memphis on an occasion of this kind, and observing the conformation of the town, offered 400 talents of gold to any one who discovered a new Apis. Polybius, Strat. vii. Jablonki, in his “Pantheon Egyptianum,” and M. Huet, bishop of Avranche, and some others, have endeavoured to prove, though not with much success, that Apis was a symbolical image of the patriarch Joseph, and appointed for the commemoration of him. But the hypothesis, that Apis and his worship were symbolical of the Nile, and the circumstances attending it, seems to be more probable. The particulars that have already recited afford a strong presumption to this purpose. The kind of animal that was selected favours this opinion; for rivers were anciently represented by bulls or oxen. Plutarch says expressly (De Iside & Osiride, Oper. tom. i. p. 66.) that the ox was in Egypt the symbol of the earth. All the mythic phenomena that attended the birth, growth, character, death, and worship of Apis, bore an obvious reference to the agriculture of Egypt, and the fertility occasioned by the inundation of the Nile.

Dr. Bryant apprehends that the name of Apis was an Egyptian term for a father, that it referred to the patriarch Noah, and that the cressent, which was usually marked on the side of the animal, was a representation of the ark. Anc. Mythol. vol. ii. p. 420.

Jablonki (ubi supra) fixes the aera of the consecration of the
the field Apis at the year 1141 before the winter sun of
Grioth; and, by the fire and water, it could be
memorized, under the reign of Theodos, together
with that of Sardus at Alexandria; and his age, a period of
1,500 years for its whole duration.

Aphis is represented on the Greek medals in the form of
a bull, with a face of the lion, the waterer of the
Net, depicted by Marquis to be a symbol of the nation.
On the medals of Adrian and Antoninus Pius, drunk in
Egypt, and on a marble presented in the cabinet of Otho-
bianus, he is dedicated with the emblem on his face.

Aphis in Eudoxus Hyfrus, the son of Phoebus, second
king of Argos, who filled in Egypt, according to the
fables of the Greeks, and made himself so famous, that after
his death he was ranked among the gods, under the name of
Serapis.

APITANI, in Ancient Geography, a people of Arabia
Pelas, according to Pliny.

APITIUS, in Ancient Geography, a people of Arabia
Pelas, according to Pliny.

APITIUM. (p. planks from Alpes, because these
insects are found of it,) in Botany, a genus of plants, including
Joff. 213.

Chis. pennatula, small, natural color of uncut
bells, a general character, cut, general leaflet of fewer
rays than those of the partial; general involucrum small, of one
or more leaflets; partial similar; proper petiole obsolete; cor.
general uniform; filaments almost all frut; petals roundish;
imper, equal; stalk, filaments simple; anthers roundish; pistil.
germ inferior; fieves excel. fiesmus obtuse; fer, none; fruit
ovate, frutate, splitting in two; seeds two, ovate. frutate on
one side, plane on the other. Edit. gen. char. fruit ovate,
frutate; locul. one-leaved; petals equal.—Species 1. A.
pe-o-traphum, common parley, fies leaflets linear; involucrum
minute; the leaflets are round, smooth, frutate. At the
origin of the universal name there is usually one leaflet,
and an involucrum of five or eight short foliages, almost as
large as hairs, at the partial involucrum. Flowers pale yellow,
regular; petals small, long, narrow, acuminate, filiform. It is
a common plant, and generally cultivated for culinary pur-
potes. Linnaeus found it growing wild in Sardinia. The
varieties of parley are a. A. folium, common garden par-ley.
A. A. tippuchum, large root parley. 2. A. glareum, or bud-
lage, or wild celery, fies leaves wedge shaped. This is
also a broad-leafed plant, frutate with a smooth, shining, deeply
furrowed fies; leaves alternate, radical, punctate, terrate
pear, triad, and frutate, shining, smooth, on one axillary
with about fifteen marcal rays; fowers for 4, white; seeds
minute. Il grows in warm, muddy places, in which it is
acid and fresh. Smith's Faw. B. 325. Miller states the
varieties of this plant as follow: 1. A. dulce, upright
celey; 2. A. raphanum, or Swiss parley; 3. A. leucophyllum.
Portuguese parley.

In regard to the medicinal properties of parley, Doctor
Woodville, in his M. Med. Genus, remarks that both the
roots and seeds are directed to be employed by the London
College; the former of which have a fies, a table, ac-
companied with a slight degree of warmth, or strains
resembling that of a: taste, but that the latter are warmer in
taste, and more aromatic than any other part of the plant,
and so must have a considerable degree of bitterness.
In dilutions, three pounds were found to yield above an ounce
of effective oil, a great part of which sunk in the fluid.
They gave out little of the qualities by infusion in water
menstrua, but readily impart all their virtue to rectified
sirups. The roots by dilution in water were aperient, but a very
mild, while a portion of effused oil, not more than an ounce
of the decoction, has the same effect as many unial.

The roots are used to be aromatic and diuretic, and
have been employed in apocryph, to relieve rheumatic
pain, and swellings of limbs. In this way they have
been prescribed by Dr. Calley, without producing any
dangerous side effects, so, by this, he thinks, may for some
hundreds be attributed to the loss of their active matter, which
they formerly possessed.

The bristled leaves have been successfully made use of as
a digestive; to servitio various kinds of tumours. We are
informed that in France, the leaves were used to cure
pains, however, as the above water, that these leaves have been
employed to prove that in some instances it causes epilepsy, or
not at all; it is given to the sick, or to the sick, who are
subject to the disease. It has been found a able to produce inflammation in the
eyes.

Aphis Menziesii. See Pseud.

Aphis petrium and montanium, See Athamanta.

Aphis, Pirusium. See Citrihum.

Aphis in Garden, comprehends parley, celery, and
in:! misleading, which are several species cultivated in the
kitchen-garden. Act. A. petrii um or common parley,
which has two varieties, the common plain-leaved, and
the curled-leaved; the A. leucophyllum, broad-leaved, or large-rooted
parley; the A. dulce, sweet, or common upright celery
of which the following varieties are cultivated: the common
upright, with the hairs of the leaves hollow or solidly
the common upright, with the hair of the leaves solid,
generally known by the names of hollow and solid celery,
the giant upright, the giant upright, with a large body
of thick hollow leaf-lances, the A. raphanum, or turpin-
seeding celery or celeriac, and the A. glareum, or
broad-leaved, or involucrum; all of which are herbaceous plants, of
hardy growth, and of the biennial tribe, or for years duration,
producing only leaves the first year, but retaining perfection for
the plant on all other domestic Uses. The second spring
they, however, shoot up flats, flower, and perfect their
seed; and in autumn perish both in root and brunch, so that
they can continue useful only one year, and therefore of little
supply must be raised annually from seed. Some of the species may
however, be deemed annual, as it grows very easily, they
run to seed the same year, especially in the celery kind.

Of the A. petrii um, or common parley, both the var-
eties are in use; but it is remarked by the authors of
the Universal Gardener, that the plane-leaved flat is most
commonly cultivated, though many prefer the curled
kind, because its leaves are more easily distinguished from
the almond, or to its parley, a sort of hemlock, and a pu-

Wild garlic is a plant, which, while young, has great resemblance to the common plane-leaved parley. Besides, the
curled parley, from its having lacerate and thicker leaves, and
being curiously infested and curled, so as to tew full and
double, makes a better appearance in its growth, and is
more
more esteemed by cooks for the purpose of garnishing dishes, &c. It may, however, be necessary to remark, that this fort, as being only a variety, is liable to degenerate to the common plane fort, unless particular care be taken to save the seed always from the perfect, full curled plants. Both the varieties are propagated by sowing grains annually in spring, where the plants are to remain; but the plants, as has been seen, are biennials, rising from seed sown in March, April, and May.

The proper season for sowing the different varieties, is any time from the beginning of February until the beginning of May; but they will grow at almost any time of the year; however, in order to have the plants come into use by the time the old plants begin to run, it is necessary to sow half about the time just mentioned. The best method for which is in dills, as it will be thus not only more conveniently kept clean and more easily gathered, but have a nearer appearance. Where only a sufficiency is required for the supply of a family, it may be sown in single drills along the edges of the borders, or the quarters of the kitchen-garden, the plants thus serving the double purpose of utility and edging; but for the supply of markets, gardeners generally sow it in large plots, either in broad drills, raking it in, or in shallow drills, at eight or nine inches distance from each other, trimming the earth evenly over it, near half an inch deep, and then lightly raking the surface, to give it a degree of smoothness. Seed of this kind is extremely slow in vegetating, sometimes not appearing in lea before a month or five weeks from the period of its being sown.

The chief culture the plants require while growing, is to be kept clean from weeds; and when they grow fuller than wanted, which is often the case in private gardens, to be cut down close. This should be constantly practiced in autumn, as about Michaelmas, or in sufficient time for the plants to recover before the winter sets in.

In order to have the seed, some rows of the one year old plants must be permitted to stand, and shoot up their stalks, which is done in May and June following, the seed being ripened in July and August.

A. latifolia, or broad-leaved parsley. The propagation of this species is also by seed sown annually in February, March, or April, where the plants are to remain. For this purpose, a spot of rich earth, in an open exposure, is to be preferred; the seed being broadcast, and raked in, the plants generally appearing in about a month after being sown, and in May or June they require to be thinned and cleared from weeds, which may be performed either by hand or hoe, but the latter is more eligible, as it will fill and loosen the surface of the earth, which may be beneficial to the plants, cutting them out to about six inches distance from each other.

In the latter part of July, the roots will mostly have attained a fixe proper size, and may be drawn occasionally; but they seldom increase their full growth, till about Michaelmas. This is sometimes called Edible parsley, probably from its being more cultivated in that place.

It is easily cultivated and esteemed for its large roots, which are white and carrot-shaped, being long, taper, and of downward growth, often attaining the size and appearance of small muddling parsnips; they boil exceedingly tender and digestible, are very wholesome, and may be used in soup or broths, or to eat like carrots and parsnips, or as sauce to hot meat.

A. dulce, or the common celery. The method of propagation in all the varieties of this fort, is by forcing the seed in the spring, and when the plants have attained six or eight inches in height, transplanting them into trenches in the manner described below, in order to be earthed up on each side as they advance in growth, and have their stalks blanched or whitened, so as to render them crisp and tender.

As plants of this kind continue useful only one year, a fresh supply must be raised annually, as has been already observed.

The proper periods of sowing, if a regular succession of plants be required for eight or nine months in the year, are at two or three different times from the beginning of March till the middle of May. As, for example, if it is intended to have celery for use as early as possible in the summer, as in July, some seed must be sown the first week in March on a warm border; or to bring the plants more forward, in a sheltered hot bed; or if it be necessary to have it still more early, the middle of February; but as the plants of these very early sowings are apt to pipe or run for seed the same year, before they attain their perfection, a few only need be raised. But for the principal crops, to come in for autumn and winter, as in August or September, and continue in perfection till Christmas or spring, the seed may be sown about the middle of or towards the latter end of March, or in the first or second week in April, in a bed of natural earth in an open exposure; and a little more of the latter end of the last named month, or in the first or second week in May, to furnish a still later crop to come in the beginning of November, and continue good until the March or April following; and to have a late crop principally for the spring, it will be necessary that a small portion be sown at the latter end of May, and by putting out some of the plants in shallow trenches about Michaelmas, and in October and November, they may be fit for use in March and April, and continue without running till the middle or latter end of the May following.

As it has been observed, that the early crop may either be sown upon a warm border of natural earth, or upon a flag or hot-bed, it may be observed, that by the latter practice, the plants may be so forwarded, as to be fit to transplant into trenches sooner by three weeks or a month, than those raised in the natural ground; a small bed of about eighteen or twenty inches deep of dung will be sufficient, which may be sheltered either with a small frame, or occasionally with mats supported on arches made with sticks; upon this five or six inches of rich light earth should be laid, the seed being then sown on the surface, and covered near a quarter of an inch deep; when the plants appear, the full art must be freely admitted in warm days, but sheltered with a glass or mats in the nights until they acquire some strength, frequent light waterings being occasionally given; when the plants of either of the sowings are two inches high, some of the stoutest should be pricked out into a bed of rich earth, in a sheltered situation, three inches apart, or to bring them still more forward, upon a tender hot bed, and occasionally sheltered with mats, giving them water, and occasionally shade, till they have firm roots; and if rain do not fall, refreshing them frequently with water as may be necessary.

As those that were thus pricked out will, in May or the beginning of June, be generally five or six inches high, some of the strongest of them should be transplanted into trenches in order to their being blanched. In regard to forcing the main and later crops at four times as have been recommended, make choice of a spot of rich light earth, in an open situation, and let it be neatly dug and divided into one or more beds; but one bed is generally sufficient for private use, which should be three feet and a half wide, the trench being made level and firm. The lead may then either be sown on the surface, and raked in lightly, or the surface first raked smooth, the lead the town, earth being sifted over it near a quarter of an inch thick; or the bed being first raked smooth as above, the earth may be sifted with the back
back of a rake from off the surface a quarter of an inch deep to the seed, then be covered by the rake turned the right way. the earth drawn upon the bed again with a kind of or, so that it may spread and cover it equally.

When the plants of these sowings are come up, they should be frequently watered in dry weather, especially when they are young. And when about three or four inches high, the feed-bed should be thinned by picking out a pair of the stronger into an open rich spot, properly dug and divided into beds three feet and a half wide, taking an opportunity, if possible, of mild weather, and in rows six inches asunder, and three or four inches distant in each row, water being given, and if dry weather succeeds, occasionally repeated till they strike fresh root; in this bed, they are to remain a month or five or six weeks, to acquire due strength previous to their being transplanted into trenches, in order for blanching. The same feed-bed will frequently afford three, four, or more different sowings, to prick out in this way, by oberving to thin out the largest plants regularly each time, before they draw each other weak by close blanking; and by thus picking them in beds till the ground intended for the trenches is at liberty, they will be advancing in their growth, and be considerabily better prepared for setting out, than such as have remained all the time in the feed-bed.

The next business is that of transplanting them into the trenches for the purpose of blanching; the season for which is occasionally from the middle of May till the latter end of October, or even middle of November, according to the forwardness of the plants, the time they are required for use, and the period it is intended they shall continue. When the plants are from about five to ten or twelve inches high, as has been observed, they are of a proper size for transplanting into the trenches.

It is necessary always to make at least three different transplantations, allowing the distance of three or four weeks between each time of planting; but when the plants are required for use as early in summer as possible, and to be continued in spring as late as the middle or latter end of May, it is eligible to plant five, or even six different crops, allowing the distance of time abovementioned between the planting of each separate crop; observing that the crops intended principally for spring use be of the latest born plants and not planted in the trenches until September, October, and beginning of November.

In making the trenches, choose a dry rich spot of ground, in an open quarter, and with a line and spade mark and chop out the trenches crossways of the piece of ground, each trench twelve inches, or about one spade breath wide, and allow a space of three feet between trench and trench, that there may be sufficient scope to have a due portion of mould to earth up the plants to a proper height; the trenches being marked in this manner, proceed to dig them out in order to form the furrow for the reception of the plants, which should be done lengthways to the depth of a moderate spade, or about six or eight inches for the early crops; but the later ones do not require so much, without taking out any slopings, laying the spits of earth alternately to the right and left in the spaces between, levelling it neatly, and beating up the edges firm and straight; then let the bottom be properly dug and levelled, or if the ground be poor, first spread therein two or three inches depth of rotten dung, and dig it in four or five inches deep.

The trenches being thus prepared, a quantity of the beet plants must be drawn, the ends of their roots, and the tops of the fraggling leaves trimmed off; then a row planted exactly along the middle of each trench, placing the plants four or five inches distant, a good watering being immediately given out of a pot with the rule on, and which, if flowers do not fall, should be repeated every other evening at least, till the plants have taken fresh root.

Only a few of the very early plants, as those sown in February, or early in March, should be planted out at a time, as they are apt to pipe almoh as soon as they are blanched, or sometimes before it is fully effect.

When it happens that the plants intended to be planted in autumn, for the late crops, have, by the allotted compartment of ground for their reception not being vacant, been put, and the seed-bed almost prepared, it may be proper to retard their running up tall, in order to obtain them of robust growth against October and November, for planting them in shallow trenches; to effect this, it will be advisable, in August or the beginning of September, either to cut them down low to shoot out again, or transplant them into rows nine inches distant.

Another method of planting and making the trenches, but which is less in use, is with a line and spade to cut or mark out a bed, or rather trench, six feet wide, crossways the ground; then to begin at one end, and proceed to dig out a cavity the above width and length, one spade deep, laying the spits of earth to the right and left, in a ridge along each side of the cavity or trench, beating it up in front that it may not slip down; and when the trench is dug, to level and level the bottom; and where dung is necessary, to add it, digging it into the bottom four or five inches deep. When more than one of such trenches are to be made, a clear space of six feet must be allowed between trench and trench, to contain the earth dug out, and to have a sufficiency to bring up to the plants afterwards.

The trenches being thus prepared, the plants are to be trimmed as before directed, and then planted, observing that they are here to be planted in rows crossways the trench, about a foot asunder, and in other respects as in the other method.

The plants of this sort, in order to whiten or blanch the stalks, and render them crisp, tender, and of a grateful flavour, require to be earthed up as they rise in height on each side, for which purpose the earth that was dug out of the trenches is to be employed; and when that is expended, that in the spaces between them must be dug out, broken, and applied repeatedly as the plants advance in growth, in this way blanching them from ten or twelve to fifteen or eighteen inches or more in height.

The proper time to begin this work, is when the plants are about ten or twelve inches high, which should be repeated every fortnight or three weeks, as may be necessary, during their principal growth. In performing the work, regard must be had to break the earth, where lumpy, moderately small with the spade; or the first and second earthing may be performed with a large hoe, but afterwards in the principal earthing a spade is to be preferred, and care taken to trim the earth up lightly to the plants, so as to break the flaks of the leaves, or force the mould into their hearts. The first time, they may be earthed three, four, or five inches, according to the size and height of the plants, observing the same rule at each time, till they are by degrees earthed to twelve inches, but fifteen or twenty are better. By this means, if the soil be rich, those of the main crop that have been planted out in the end of June or in July, sometimes make such progress, that by September or October they may be blanched eighteen inches, or near two feet in length. These earthings are to be continued to the later crops.
crps occasionally, until Christmas, or as long as the plants continue to grow in height during the winter, at which seas, as about November and December, it is proper to earth them up, and to secure their tops from hard frost sitting in, which often destroys such plants as are out of the ground, and which, if of considerable duration, would occasion the decay of most of the other parts that are within the earth.

But in the late crops, planted in October or November for spring use, each plant as are of small or low growth, will probably require but little or no earthing till February or March, at which time they should be earthed up moderately, according to their growth, to have them for use in April and May, when the general crops are finished.

In earthing up the plants that are planted in the latter of the above methods, it will be necessary to trim the earth in well between the rows, taking it equally from the different sides; in doing which, it is of advantage, where the plants have attained a large growth, to be furnished with a couple of thin boards, fix feet long; which are to be used at the time of earthing, to open the spaces between the rows of plants, to keep the banks and leaves up close just till the earth is put in, placing them close to the plants, and then trimming in the earth between them; and when one space is thus earthed, drawing out the boards, and placing them in the next.

The different earthings should always, if possible, be performed when the plants are dry, as where this circumstance is not attended to, they are apt to become spotted and canker.

Some of the first earthed-up plants, where they have been planted in the trenches in May, or the beginning of June, will generally be fit to take up in July; for when such early plants are blanched five or six inches in length, it is time to begin to take them up, as they rarely continue long before they begin to pipe and become useless.

But the plants of the main crop will seldom be blanched any considerable length, till the middle or latter end of August, and beginning of September, and will not have acquired their full perfection until October, as observed above. However, where there is much demand for the plants, you may begin to take some up, when they are blanched six or seven inches, as, if properly followed with earthing, they will be daily increasing in length in the blanched part.

In winter, at the approach of very severe frost, it may sometimes be of advantage to cover some of the rows of the main crop with dry long litter to save the plants, and prevent the ground being frozen hard, that the plants may be readily dug up when wanted. And when a hard frost is expected, a quantity of the plants may be taken up for use, and laid in some dry earth in a shed, or other sheltered place.

**A. rapifera**, or the turnip-rooted celeriac. This is likewise propagated by seeds, sown in an open rich spot in March or April, as directed for the common sort; and when the plants are an inch or two high, they are to be thinned to three inches; and at four, five, or six inches in height, transplanted into shallow trenches; previously to which the ground must be dug all over one spade deep, and drills three inches deep and eighteen inches wide, made with a hoe, in which the plants are to be set six inches distant.

When they are advanced nine or ten inches in growth, observe the progress of the roots, and if they have acquired a tolerable size, draw earth up to each side of the row of plants, three or four inches high, which, being well watered, will be sufficient to improve the roots. They are generally fit to take up for use in a fortnight or three weeks afterwards.

**APR**

A. *gervicolus*, or smallage. This is a plant of the weedy kind, and but seldom cultivated in the garden. If wanted, it may, however, be easily raised in the spring.

**APVIRUS**, in Ornithology, a species of the falco genus. The head is black; feet half marked and yellow; head grey; tail banded with crimson colour, and white at the tip. Linn.

This is a very variable bird in respect of its colour, and scarcely any two authors agree in describing it. The length of one specimen is twenty-three inches; weight thirty-eight ounces. The bill and cere black; irides golden yellow; head n-coloured; neck, back, angular, and wings covert deep brown; the chin nearly white streaked with narrow brown lines; some part of the neck rufous, breast and belly barred with transverse regular bars of rufous brown and white; each feather being white with two bars across it. Tail brown, with two double bars, one in the middle and the other near the end. Legs short, yellow, claws black. Lath. Gen. Syn.

One described in the British Zoology about the same size had the chin white, breast and belly of the same colour, marked with dusky spots, pointing downwards; and the tail long, of a dull brown colour, marked with three broad dusky bars, between each of which were two or three of the same colour, but narrower. Another, supposed to be the female, being shot on the moor, is noticed in the supplement of the folio Zoology of Pennant; it was entirely of a deep brown, but had much the same marks on the wings and tail as the male; and the head was tinged with ash colour. Linnaeus says, the tail has only one circular band across; the side tail feathers are banded with white, and spotted with brown, according to Briflon; and Albin's bird had no bars on the tail.

The honey-buzzard inhabits various parts of the continent of Europe, but is no where common except in the open parts of Ruffia and Siberia; is seen as far north as Sondor in Norway; in England is scarcely ever met with.

It feeds on larvae of bees and wasps, and on frogs and lizards; the eggs are of a deep red brown, with ferruginous blotches. This is the subgeneric *APVIRUS* of Ray, la bonte de Briflon and Buffon, le gisant on borde de Billon, and honey-buzzard of Albin. Pennant, Brit. Zool. and Donovan, Brit. Birds, 5, 50.

**APLANTATIC**, formed of of *s. prin. and etiax, ota*, in Optics, a term applied by Dr. Blair, professor of practical astronomy in the university of Edinburgh, to that kind of refraction discovered by himself, which entirely corrects the aberration of the rays of light, and the colour depending upon it, in contradistinction to the word aplanatic, which has been appropriated to that refraction, in which there is only a partial correction of colour. After a variety of researches and experiments, detailed at large in a paper read before the Royal Society at Edinburgh, in 1791, and published in the third volume of their Transactions, he discovered a mixture of solutions of ammoniacal and mercurial salts, and also some other substances, which produced dispersions proportional to that of glasses, with respect to the different colours; and he proceeded to construct a compound lens, consisting of a semi-convex one of crown glasses, with its flat side towards the object, and a meniscus of the same materials, with its convex side in the same direction, and its flatter concave next to the eye; and the interval between these lenses he filled with a solution of antimony in a certain proportion of muratic acid. The lens, thus artificially adopted, did not manifest the slightest vestige of an extraneous colour. His discovery is undoubtedly valuable and important, and may lead to a very useful improvement in the construction of telescopes.

Dr. Blair obtained a patent for his invention of a method of
improving the refracting telescopes, and other optical instruments, in 1791. See Abbreviation and Telescope.

APLHEBOL, in Geography, a town of Germany, in the circle of Weilphalia and county of Mark, three miles south from Dortmund.

APLOGA, a district of the kingdom of Wikkad, on the Slave coast in Africa, where is held a regular market for slaves, cows, sheep, goats, birds, apes, cloth, cotton, callicose, silk, fluits, china, mercury, gold in dust and ingots, &c.

A-PLOMB is a very expressive French term in music and dancing, for exactness and precision in time, or measure. To say that a vocal or instrumental performer has an exact \(\text{\textit{d'aplomb}}\) is pronouncing him or her to be a good timist. So a dancer who \(\text{\textit{dances on his feet precisely at the beginning of a bar, or the end of a period or movement, is said to have a good \text{\textit{d'aplomb}}—the highest praise that can be given him. A leader on the violin, who in } \text{\textit{tempo rubato}} \text{ (borrows time which he never pays), drags a note beyond its due length, and arrives not at the beginning of a bar at the same instant as the rest of the band, has no \text{\textit{d'aplomb}}. It seems as if the old refinement of \text{\textit{tempo rubato}}, and the new one of \text{\textit{retractando}}, could only be validly practiced in folos, or solo passages, as great confusion must arise in an orchestra by the recantando and accelerations of an individual performer, if the rest are not appraised of the leader's intention.}

A-PLUDE (the name of the chaff, &c. that dies off from grain), in Botany, a plant of the genus kind, Lin. gen. 1147. Schreib. 1751. Gerin. t. 1 5. Jeff. 32. Chaff, pellima monoxe; natural order of Gramina.

Generic Character. Calyx, involucr-common univalve; valve ovate, concave, terminated by a very short point or leaflet, two-flowered; the inferior flower fertile, short at the base, ovate, truncate, hollow down into the two opposite foot-flats, which are glamous, flat, vertical; on one of these is placed the superior flower, on the other a very short rudiment of a flower; inferior flower hermaphrodite, almost wholly concealed between the foot-flats; calyx involucr-proper univalve; valve-linedolate, compressed, rigid, double-toothed at the tip, smooth, embracing the flower with its margins beneath, opposite to the common involucr; glume one-flowered, two-valved; valves membranaceous; transparent, shorter than the involucr; the exterior navel, gibbous on the back, keeled, contracted towards the tip, acuminate; the interior ventricose lanceolate that sharp, flattened; corolla globose bivalve, membranaceous, very thin; transparent; valve-exterior navicular, compressed, smooth, greenish, gibbous on the back, biform, acute, awned above the tip, concealed within the exterior valve of the calyx; the interior lanceolate, flat, acute, dilated to each other at each margin, the exterior rather longer; nectary very small, twolayered, truncate-rounded, greenish; filaments three, capillary; anther linear, biform on each end; stigmas, green oblong, small; stigmas two, papilliform, erect, ligneous oblong, vilose, protruding on each side of the flower; perigynium none; corolla cherishes the seed, which is ovate-oblong, compressed and smooth; flower-superior small; calyx, glume two-flowered, two-valved; valves lanceolate, broadish, flat, sharp, nervously, nearly equal: one fleshy female, the other male or neuter; corolla of the male a bivalve glume; valves membranaceous, greenish; the exterior ventricose, cornered, pointed: the interior lanceolate, narrower, shorter, obtuse; of the male, glume bivalve; valves lanceolate, membranaceous, greenish, the exterior rather ventricose, sharp; the interior narrower, shorter; nectary in both as in the inferior flower, and into the stamens of the male, and pubescence of the female flowers. It has been observed, that sometimes each flower of the superior flower is male.

Essential generic character. Calyx, glume common, twice; female flower bivalve, male peduncled; male, calyx none; corolla bivalve; \(\text{\textit{femina thre-}}\); female calyx none; corolla bivalve; filey one; food one, covered.

Species. 1. A. nucalis, leaves lanceolate, all the flowers awl-like; culms very long, weak, smooth, awned at the joints; leaves long, flat, narrowed at the base into a petiole; palisade small, lateral; a native of India. 2. A. ariflata, leaves lanceolate, male flowers awl-like, except one at the end, which is awned and fertile; culms a foot long, inflected; leaves rough, petiolate; racemes axillary; flowers in threes: a native of India. 3. A. argentea, mountain-reed-grass, leaves ovate, flowers similar to those of the ariflata; culms from one to two feet in height, bifoliate, pointed; leaves subphaloe, acute, nerves, rectulicate, smooth; panicle spreading, few-flowered; a native of Jamaica, where it was found by Brown. See his Jam. 341. t. 4. f. 3. 4. A. digitata, spikes dioctot; flowers all pointing in the same direction; a native East-Indian grass, described by Thunberg.

APLUSTRE, or ASPHALT, in the Ancient Naval Architecture, a carved tablet, somewhat after the manner of a shield, fixed by way of decoration to the extremity of a ship's head. This ornament was in the stern, and sometimes on the prow, and from it was erected a flag or pole, with a ribbon or banner on the top. It belonged to the Greek asphalites.

The asphalites, or bucks of ships, were sometimes also called aphisites.

But what think that the asphalite answered to what we call the flag, or ensign.

APYNOEA, from \(\text{\textit{ap}}\) and \(\text{\textit{nous}}\), to breathe, in Medicines, denotes a want of breath, or loss of respiration.

In this sense, the word was used among the ancients, not as importing a total privation of breath, which would be another name for death; but to denote the respiration very small and slow, or as to seem quite gone, as is the case in suffocation of the meara, apoplexies, lycocenes, lethargies, &c.

APOBATEN, in Antiquity, the name given to those athletes, who were also denominated \(\text{\textit{parabat}}\). 4. APOBATAN, in Ancient Geography, the metropolis of Macedonia, more properly and more generally called Edessa.

APOBATITION, from \(\text{\textit{ap}}\) and \(\text{\textit{baton}}\), to depart, among the \(\text{\textit{A}n}o\)ts, a farewell speech or poem, made by a person on his departure out of his country, or some other place where he had been kindly received and entertained.

Such is that of \(\text{\textit{A}n}o\)ts to Herodius and Andromache, \(\text{\textit{An}}\); ii. iii. The oblation slain is opposed to the epibatides.

APOBATIVO, in Ancient Geography, a place of Peloponnese, on the coast of the Argus, west of the gulf, near Corinth and Larus; where, according to tradition, Danaus and his sons landed on the shore of Argos; whence the name.

APOBATIRHA, a place in the Thracian Chersonesus, where the troops of Xerxes landed in their passage from Asia to Europe.

APOBATUS, in Antiquity, a kind of little bridges, or rails, joining the land to ships, or one ship to another.

APOPHEI, in Botany, a name given by the natives of Guinea to a species of corn-marygold, called by Petiver \(\text{\textit{citrisinonanum apophi}}\) Guinea corn longis amygdi, from its having long and narrow leaves, and no stalk to support the flower. The people of the place use this in the small-pox, and other eruptive fevers, boiled in water, and the liquor drank warm. Phil. Trans. N. 232.

APOPOMIOI, from \(\text{\textit{ap}}\) and \(\text{\textit{mioi}}\), below, and \(\text{\textit{aspos}}\), altar, in Antiquity, sacrifices offered on the bare earth, without altars.

APOCALYPTA, formed of \(\text{\textit{apokalypys}}\), I reveal; \(\text{\textit{katapsimia}}\), the name of the last book in the canon of Scripture.
The first question that occurs in our examination of this book relates to its authenticity. This is a subject on which many ancient and modern writers have differed; and it will be sufficient to give a brief view of the evidence which testimony affords concerning it. It has been alleged, that there are evident allusions to this book in the Shepherd of Hermas, a piece that was written towards the close of the first century; and that it was received by Papias, who flourished about the year 150. Justin Martyr, about the year 140, was well acquainted with this book, and received it as the genuine writing of the apostle John. Among the works of Melito, bishop of Sardis, one of the seven churches of Asia, about the year 177, Eusebius mentions one, intitled, "The Revelation of St. John;" and it is probable, that he ascribed this book to the apocryphal name, and esteemed it of canonical authority. It appears to have been referred to by the Martyrs at Lyons, A.D. 177. Irenaeus, bishop of Lyons, about 178, who in his youth was acquainted with Polycarp, often quotes this book as "The Revelation of John the Disciple of the Lord;" and he says concerning it, that it was written not long ago, but almost in our age, at the end of the reign of Domitian. From the writings of Athenagoras, the Testament of the Twelve Patriarchs, and the Clementine recognition, Dr. Lardner has produced single allusions to the Apocalypse, which prove, that the authors of these books were acquainted with it, though they do not warrant the conclusion, that they considered it as the genuine work of St. John the apostle. But it was undoubtedly received, and often cited by Theophilus, bishop of Antioch, about A.D. 181; Clement of Alexandria, who flourished about 194; and Tertullian about the year 200. Eusebius informs us, that Apollonius, who wrote against the Montanists about the year 211, quoted the Revelation. It was received by Hippolytus about the year 220, who wrote a commentary upon it; and about 230, by Origen, who has often cited it, and who seems to have had no doubts about its genuineness. Dionysius, a disciple of Origen, and bishop of Alexandria, about the year 247, or somewhat later, wrote a book against the Millenarians, in which he allows the Revelation to have been written by John, a holy and divinely inspired man, who was, as he supposes, not John the apostle, but an elder who also lived at Ephesus. About the year 240, and before, it was received by Nepos, an Egyptian bishop, and by many others in that country, and held in great reputation. After the age of Dionysius, the number of ecclesiastical writers who quote the Apocalypse, as a divine work, begins to increase. According to Lardner, it was received and frequently quoted by Cyprian, bishop of Carthage, about 248; and by the church of Rome in his time, by Novatus, A.D. 254; and his followers; by Commodian, A.D. 270; by Victorinus, who wrote a commentary upon it; and by Methodius, A.D. 290; probably by the Manichaens, though this is disputed by Beaufobre; by Arnobius, and Laetantius, A.D. 306; by the Donatists, and by the Arians, in the fourth century. In the time of Eusebius, about the year 315, it was not received by all, and therefore he reckons it among contradicted books, observing that it was rejected by some, but by others referred to the class of books universally received. He seems to have hesitated about it; for he neither pronounced it to a forgery, nor ascribed it to St. John the apostle. He says, however, that the Revelation was seen by John the elder, if not by John the apostle. Dr. Lardner observes, that the critical argument of Dionysius of Alexandria had great weight with him, and with others of that time. The Revelation was received by Athanasius, bishop of Alexandria, A.D. 325; by Epiphanius, bishop of Cyprus, A.D. 378; by Gregory Nazianzen, A.D. 370, as some have inferred from his citing it, but others have disputed his acknowledgment of it; by Jerome, A.D. 392, who admitted it after a more cautious examination than was instituted by some of his predecessors, and who appealed in support of its authenticity to ancient testimonies; by Rufinus, A.D. 397; and by Augustine, A.D. 405. The authority of this father was so great, not only in the African church, but in the Latin church in general, that his reception of the Apocalypse contributed very much to its almost universal admission both in Africa and in the west of Europe. During his time, in the year 397, was held the third council of Carthage; and this was the first council in which this book was pronounced canonical. Innocent I. declared pope in 402, declared likewise, that this book, from which his successors were to be proved the Antichrist, was canonical. It is in the catalogue of Dionysius the Areopagite, and in Greek manuscripts, such as the Codex Reucliini, Alexandrinus, and Seidelianus. It was received by Sulpicius Severus about 401, and declared to be a genuine and divine work, in the fourth council of Toledo, A.D. 633, for this curious reason, because it had been pronounced such by several councils and several popes, and the decrees of this council annuls all doubts of its authenticity in the Latin church. Andrew bishop of Cæsarea in Cappadocia, at the end of the fifth century, and Arius bishop of the same place in the fifth century, wrote commentaries upon it. In the Syrian church, which comprehended not only all the Chriftians who resided in Syria, Affyria, and Mesopotamia, but likewise all those who were dispersed in Arabia, Persia, Tartary, and China, as well as in the Greek and Latin churches, the book of Revelation was acknowledged as a divine work. To this purpose Ephrem the Syrian, about A.D. 370, not only quoted it, but received it as a divine book; for he says concerning it, "John saw in revelation a great and wonderful book which God had written, and which was sealed with seven seals." In the seventh century, a new and very literal translation was made of the Apocalypse, and taken into the Philoxenian version, which was chiefly used by the Monophysites, so that they did not reject it. In the latter end of the same century, and the beginning of the next, lived Jacob the Monophysite, bishop of Edessa, who has quoted the Apocalypse in his commentary on Gen. xlix. 17. That the Syrians of the Nestorian party likewise received this book in the eighth century, appears from an ancient monument which was dug up at Sanchuan, in the Chinefe province of Xeni, in the year 165. On this monument, which appears to have been erected A.D. 751, at which period, as well as during some centuries later, there was a very numerous colony of Nestorian Syrians, in China, mention is made of the New Testament as containing 27 books, so that the Apocalypse must have been included; but it is needless to pursue the evidence to a wider extent, or to a later period. Having cited a great number of very respectable authorities in favour of the genuineness of the Apocalypse, it may not be improper, for affailing the judgment of the reader, to present some of the testimonies that have been urged against it. The most ancient evidence on this side of the question, is that of Ignatius, A.D. 107, who wrote epistles to the churches of Ephesus, Smyrna, and Philadelphia; three of these that are mentioned in the book of Revelation; and who reminds the Ephesians of the praises bellowed upon them by St. Paul, and yet takes no notice of the praises which, according to Rev. ii. 1—7, 8—11, iii. 7—12, their bishops had received from Christ himself. Hence it has been in-
ferred, either that the Apocalypse was unknown to Ignatius, or if known, not believed by him to be genuine; and it was a genuine work of St. John the apostle, it could not have remained unknown to him. The old Syriac translator, who lived in the first century, did not translate the Apocalypse; and hence it is probable, that he either knew nothing of it, or did not believe it to be genuine. The testimony of Papias in its favour is dubious; for it is urged, that as he was the friend of the faith of the Millennium, he would naturally have recorded the 20th chapter of this book, if he had been acquainted with it, in support of his opinion. In the second century it was acknowledged and cited by many eminent persons; nevertheless in this century there existed a sect, called the Alogi, who were acquainted with the Apocalypse, and yet denied it to be genuine. One of their principal and most plausible objections against the authority of this book is founded on the circumstance recorded in ch. ii. 23-25, in which the fourth epistle is directed to be addressed to the aged of the church at Thyatira; whereas, they affirm, that there existed no church at Thyatira. This objection of the Alogi Epiphanius has delivered in the following words, "καί Μη αναλέγοις την επιστολήν τον Θυάτιρα, ἀλλ' ανέλεγον τις την επιστολήν τον Θυάτιρα." But these words are ambiguous, for they may denote either that there was no Christian community at Thyatira in the time of St. John, or there was no such community there when the Alogi made their objections. In the latter sense the argument is of no importance; for though there might be no Christian society at Thyatira in the middle of the second century, there might have been one in the reign of Claudius, to which period Epiphanius refers the Apocalypse. But the fact was not true, as there existed a community of Alogi, who certainly considered themselves as Christians, and another sect who were opposed to the Alogi, and who were called Phyrgians. It is, therefore, not necessary to recur with Epiphanius to the prophetic spirit of St. John, who foresaw there would be a church at Thyatira in course of time. Besides the Alogi, there were other adversaries of the Apocalypse, who lived partly at the same time with them, and partly in the beginning of the third century; and who rejected the Apocalypse, not so much as the Alogi did, from their antipathy to the term apocalyptic, but principally from their dislike of the doctrine of the Millennium. Among these we may reckon the Roman presbyter Caius, who lived about the year 210. Some, however, have supposed that Caius refers to a different Apocalypse from ours. Dionysius of Alexandria, though he did not reject it as a forgery, did not ascribe to it the work of St. John the apostle, and probably did not believe it to be a divine work; but his reason for not ascribing it to St. John are not historical but critical; and, therefore, their importance depends not on the antiquity of the writer who affixed them, but merely on their own internal strength. It is well observed by Michaelis, who himself hesitates in allowing the genuineness of this book, but who has fairly stated the evidence on both sides, that if it were not written by St. John, we have reason to wonder, that neither Dionysius nor his predecessors, neither the Alogi nor Caius, should have alleged against a work, supposed to have been first uttered into the world about the year 120, any arguments like the following: "It is not preserved in the archives of the seven churches; the oldest persons in these cities have no knowledge of its having been sent thither; no one ever heard during the life of John; it was introduced in such and such a year, but was contradicted as soon as it appeared." Arguments like these would have at once determined the question in dispute; but since we meet with no such arguments in the writings of the ancient adversaries of the Apocalypse, its very adversaries have given it an advantage, which, if not decisive, merits peculiar consideration. Eusebius, who was in possession of almost all the information that was to be collected before his time, had not been able to discover anything decisive in respect to the Apocalypse, and consequently remained in doubt. He, therefore, neither pronounced it a forgery, nor ascribed it to St. John the apostle. Michaelis gives his examination of the evidence prior to the time of Eusebius, with the following remarks: "How is it possible that this book, if really written by St. John the apostle, should have either been wholly unknown, or considered as a work of doubtful authority in the very earliest ages of Christianity? The other apocalyptic epistles are addressed only to single communities or churches; but the Apocalypse, according to its own contents, was expressly ordered by Christ himself, in a command to St. John the apostle, to be sent to seven churches; and not only were these seven churches in that part of Asia Minor where Christianity was in the most flourishing situation, but one of them was at Ephesus, where St. John spent the latter part of his life, and consequently where every work of St. John must have been accurately well known. If St. John then had actually sent the Apocalypse to these seven churches, and that too not as a private epistle, but as a revelation made to him by Jesus Christ, one should suppose that its authenticity could not have been doubted, especially at a time when there were the best means of obtaining information. We cannot say that the book was kept secret, or was concealed in the archives, lest the prophecies against Rome should have been concealed on the Christians; for secrecy is contrary to the tenor of the book; and the author of it enjoins (ch. i. 2) that it should be both read and heard. "Under these circumstances," adds the author, "the authenticity of the Apocalypse appears to me very doubtful; and I cannot avoid entertaining a suspicion, that it is a spurious production, introduced probably into the world after the death of St. John." Since the time of Eusebius, and some centuries later, the doubts that had prevailed concerning the authenticity of the Apocalypse considerably abated, especially among the members of the Latin church, who at last received it almost unanimously. Among the Greek writers, however, there were several who rejected it. It was not received by all in the time of Epiphanius; it was omitted in the catalogue of the council of Laodicea, held A.D. 363; but professor Spittler, says Michaelis, has clearly shown, that the whole of the sixteenth canon, which contains this catalogue, is a forgery; and if this be true, no evidence can be deduced from it in future against the Apocalypse. It was not acknowledged by Cyril, who was bishop of Jerusalem from the year 350 to the year 386; nor was it admitted into the catalogue of canonical books by Gregory Nazianzen; and by Gregory of Nyssa it was placed among the Apocryphal writings. In fact, says Michaelis, it was almost universally considered as spurious by the members of the Greek church at the end of the fourth century: and Dr. Lardner acknowledges, not only that the two celebrated Greek commentators, Chrysostom in the fourth, and Theophylact in the eleventh century, have not quoted it in a single instance; but that Nicephorus, patriarch of Constantinople, about the year 806, expressly rejected it; and on his testimony, it was placed among the Apocryphal books.

Although the Apocalypse made no part of the old Syriac version, which is the vulgate of the Syrian church in general, it was translated in an early age into that language. Nevertheless, it was not received by Severian, bishop of Gabala in Syria, A.D. 401; nor by Theodoret, bishop of Cyrus, in Syria, A.D. 423; nor by Ambrose, who was priest of all the Monophysites of the east in the thirteenth century.
century, and was by far the most learned of all the Syrian writers; and it was entirely omitted in the catalogue of sacred books formed by Ebeddus, metropolitan of Armenia, who died in the year 1318. It does not appear to have been received, or at least to have been publicly read at Alexandria in the fifth century, but it was received in general by the Egyptian Christians.

In modern times this opinion of learned men has been very generally and decisively in favour of the authenticity of the Apocalypse; yet there have been some who have entertained doubts about it, and others who have denied it. Among the latter we may mention Luther, who, in the preface to his edition of 1524, positively rejected it; but in the later editions, he has expressed himself in terms less decisive, and left it to others, who, he says, were better qualified than himself to determine whether it merited a place in the sacred canon or not. Michaelis, also, after an elaborate examination of the authenticity of this book, concludes with leaving the decision of this important question to every man's private judgment.

The arguments for or against its divinity, deduced from the completion or non-completion of the prophecies contained in it, have been particularly considered by Michaelis (ubi infra), and to this learned writer the reader is referred.

Sir Isaac Newton closes his brief account of the ancient testimonies in favour of the genuineness of the Apocalypse with this observation: "I do not, indeed, find any other book of the New Testament so strongly attested, or commented upon so early as this."

As to the author of this book, there has been a considerable difference of opinion among both ancient and modern writers. Some have ascribed it to John, a presbyter of Ephesus. Of this number seems to have been Eusebius, who, after having drawn from the writings of Papus, that beside St. John the apostle, there lived at Ephesus a presbyter of the same name: he adds, "This latter John was probably the person who saw the Revelation, unless it be inferred on that, it was the former." Others attributed the Apocalypse to Cerinthus, who is supposed to have lived in the time of St. John; and to this class we may refer the Alogi, and, probably, the Roman presbyter Caius, and other persons in Egypt, of whom Eusebius has given an account. Eccl. Hist. b. vii. c. 25. Against this opinion it has been justly alleged, that if the inspiration be not false, Cerinthus could not have been the author, unless he also was called John; besides, the Revelation contradicts many of Cerinthus's sentiments, and therefore could not be his work. According to Irenæus, Cerinthus denied that God made the world; whereas, the writer of the Revelation often teaches the contrary. See Rev. c. iv. 11. He also maintained, that Christ did not suffer, but Jesus only. But the author of the Revelation calls Jesus Christ, not Jesus alone, the first begotten of the dead; and adds, that the same Jesus Christ washed us from our sins in his own blood (Rev. 1. 5.); and, v. 7. he says of Jesus Christ, that he was pierced. It is, therefore, improbable to the highest degree, that Cerinthus should have written the Revelation under the name of John; for if he had meditated such a fraud, in favour of his Millennium, he would have so contrived it, as not to hurt his other equally favourite opinions. It has been also said, that the Revelation does not establish Cerinthus's notions of the Millennium, but directly contradicts and overthroweth them; for the author of the Apocalypse describes his Jerusalem as inhabited by numbers of pure and holy persons (Rev. xxii. 27. xxii. 24. 15.); whilst Cerinthus's Jerusalem was to be the residence of the earthly and sensual. His citizens were to serve their passions and their pleasures; whilst the men of John's Jerusalem were to serve God and the Lamb (Rev. xxii. 3.). His millenarian state was not the life of saints, as the Apocalypse represents it, but the life of libertines.

The more general received opinion concerning the author of the Apocalypse is, that it was written by St. John the apostle and evangelist, who was the writer of the Gospel and the Epistles. To this purpose it has been argued, that in ch. i. v. 1. John titles himself the Servant of Christ, in a sense not common to all believers, but peculiar to those who are especially employed by him; and, in v. 2, the writer is supposed to refer to the written gospel of St. John, and to say, that he had already borne testimony concerning the word of God and of Jesus Christ. On this particular, Dr. Lordner lays no great stress; and he thinks, that if St. John had intended to manifest himself in this introduction, he would have more plainly characterised himself in several parts of this book than he has done. But the evidence of antiquity, in favour of its having been written by St. John the apostle, is of much greater moment; besides, it has been alleged in proof of its genuineness, and of St. John's being the author of it, that there are many infinities of conformity, both of sentiment and expression, between this and the uncontroverted writings of St. John. For such coincidences, learned men have referred to Rev. xix. 3. John, i. 1.; Rev. v. 12. John, i. 7. 19. 35. 36; Rev. iii. 7. xii. 11. John, i. 14. xiv. 6.; 1. John, v. 20. Rev. ii. 17. John, vi. 32.; Rev. i. 7. John, xxxii. 37. Rev. iii. 20. John, xiv. 23. Rev. i. 5. 1. John, i. 7.; Rev. iii. 21. John, xvi. 23. 1. John, ix. 13. 14. iv. 5. These coincidences tend to invalidate the objection of Dionysius of Alexandria, who says, that there is no affinity or resemblance between them. This learned writer has also observed, that the Gospel and first Epistle of John are written correctly, and not only according to the propriety of the Greek tongue, but with elegance of phrase, argument, and composition; quite free from barbarism and solecism, and even idiom of language; but the writer of the Revelation discovers no accurate skill in the Greek tongue; on the contrary, he has barbarisms and some solecisms. The Apocalypse, it is observed, abounds with harsh constructions, in which a nominative is placed where another case ought to have been used. Bengelius, in his "Apparatus Criticus," has alleged instances from ch. i. 5. ii. 203. iii. 12.; viii. 93; ix. 14.; xvi. 12.; xviii. 11. 123.; xxi. 10. 123.; xiv. 5.; xvii. 4.; others might be added. Although constructions of this kind were probably not unusual among the Greek Jews, yet we find no such examples in the gospel and epistles of St. John. Some of these unusual constructions, it has been pleaded, are not found in all manuscripts, and only in a very few printed editions; but they occur too frequently in the Apocalypse to be imputed wholly to transcribers: and they existed in this book long before our most ancient manuscripts were written, as in the third century, when they were noticed by Dionysius. Besides, the Apocalypse abounds with Hebrisms much more than the other writings of St. John; and this coincidence has induced some commentators to suppose, that it was originally written in Hebrew, and that our Greek text is only a translation; but this is wholly unsupported by historical evidence. Moreover, though the figurative language of the Apocalypse, when compared with the simple style of St. John's Gospel, cannot be fairly alleged as an argument, that the two books were written by different authors; for the same author, when animated by a spirit of prophecy, will write in a different manner from that in which he had written as an historian; yet there is a certain character, it has been said, in the language of the Apocalypse, which is hardly to be reconciled with the manner that is visible in St. John's Gospel. In the latter, there is a soft and gentle character.
APOCALYPSE.

rater, so peculiar to itself, as to exhibit no trace of imitation; whereas, in the former, we find the author an imitator of the ancient prophets, from whom he borrows his images, and renders them more beautiful than they were in the originals. And the imagery, which is taken from the theology of the rabbins, acquires in the Apocalypse a taste and eloquence, of which the rabbinical writings themselves are wholly deficient. The beauties of St. John's gospel are of a different kind; for while the author of the Apocalypse hurries us away to enchanted ground, and refembles a torrent which carries every thing before it, St. John the evangelist is plainspeaking and gentle-necess, and is like a clear rivulet, which flows without rapidity and violence. Is it possible, therefore, subjoins Michaelis, that St. John the apostle, and the author of the Apocalypse, called St. John the divine, were one and the same person? It is, indeed, an undeniable fact, that the style of the Apocalypse is very different from that of St. John's gospel. Mr. Blackwell denies this; but it is allowed by Joachim Camerarius, Beza, Mill, &c. "This, I suppose," says the impartial and candid Lardner, "to be the more general opinion of learned men, that there is a considerable difference of sentiments and words, and manner, in the Revelation, and the acknowledged pieces of the apostle John; whatever this difference is owing to, whether it be that these writings are not all the compositions of one and the same author, or that it is entirely owing to the diversity of subject and design, or to some other cause. I shall, however, mention another thing to be considered: if there were any reason to think, that there was some considerable distance of time between the composing of any of these books, that might be one good way of accounting for differences of style; for it is not unlikely, that one and the same person, writing upon different arguments, and at a great distance of time, especially if he be one who does not frequently exercise his fancy, or write in the intermediate space, should have a very different manner in his several performances."

Dionysius has further remarked, that St. John the apostle has not mentioned his own name in his gospel, or in any of his epistles; but, when he has occasion to speak of himself, he makes use of a circumlocution. On the other hand, St. John the divine mentions his own name, not only in places where it was requisite, as in the address to the seven churches (ch. i. 4.), but likewise in places where the simple pronoun "I," or the expression, "he who wrote this," would have been full as proper the term "I, John." The one appears to have an execeptive mould, and to avoid even the shadow of egotism; the other avoids it so little, that he is lavius in the use of his name. And what renders this difference the more remarkable is, that the circumlocution by which St. John the apostle denotes himself, viz. "the disciple whom Jesus loved," is not once used by St. John the divine. This objection admits of various replies. Although St. John has not expressly named himself in his gospel, he has so described himself (John xxi. 24. and other places), that it is impossible not to know him; the other apostles have forborne to mention their names as well as John; nor is there any name prefixed to the epistle to the Hebrews; and the character of the prophet being different from that of an evangelist, required the introduction of his name in conformity to the ancient prophets, who had inherited their names at the beginning, and in other parts of their prophecies. Dr. Lardner does not allow this last observation to be fully satisfactory, as the apostle has not specified the time of his prophecies and visions, and other particulars, which was done by the ancient prophets, and by Daniel in particular. As for the want of any description annexed to the name of John, we may infer from this circumstance, that he was the principal person of that name then living, that is, John the evangelist; and as this was the case, his name needed no additions. Besides, he is actually described (ch. i. 9.) under characters which were appropriate to John the apostle. Upon the whole we may observe, that he calls himself John; that he is described as one who bore record of the word of God; that he had been in the isle of Patmos for the testimony of Jesus; and we have no account of any John who had been an exile in this island about that time, except John the apostle; and, moreover, he writes to the seven churches of Asia, where the apostle and evangelist is supposed to have prevailed; and it is not likely that the spirit of God should admonish and reprove these churches by John the elder, allowing there was such a person, whilst John the apostle was living, and prevailed in those parts. Upon the whole, there seems to be sufficient reason for concluding, that St. John the apostle was the author of the Apocalypse.

Another subject of inquiry, concerning which the learned have differed, is the time in which this book was written. On this point fix different opinions have been advanced. 1. It has been asserted, that the Apocalypse was written in the reign of the emperor Claudius. Epiphanius is the only evidence in favour of this opinion, and he lived 300 years later than St. John. Although Grotius recommends this opinion by having adopted it, and supposes that the visions of the book were seen at several times, and afterwards joined together in one book, two very material objections have been urged against it: the first is, that there was no persecution of the Christians in the reign of Claudius, and therefore the banishment of St. John to the isle of Patmos cannot be referred to this period. This emperor did indeed issue an edict for banishing the Jews from Rome, but it did not affect the Jews in the provinces, much less the Christians; and the governors had no authority to banish Jews or Christians out of their governments, without an order from the emperor; and moreover, St. John was not in Ephesus during the reign of Claudius. The second objection to this date is founded on the circumstance, that the seven churches in Asia, to which the Apocalypse is addressed, did not exist at so early a period as the reign of Claudius; for this fact cannot be reconciled with the history given in the Acts of the Apostles, of the first planting of Christianity in Asia Minor. 2. It has been maintained that St. John was banished to Patmos, and wrote the Apocalypse there, in the reign of the emperor Nero, before the destruction of Jerusalem. This opinion has one evidence in its favour, but it is anomalous, and without date; and that is, the subcription to the Syracusan version of the Apocalypse; but thus feebly supported, it has been sanctioned by the adoption and arguments of Sir Isaac Newton. Dr. Lardner has examined the arguments of Newton, and does not allow them much weight. 3. According to another opinion, the Apocalypse was written before the time of Domitian, and before the Jewish war, but it does not determine whether it was in the reign of Claudius or in that of Nero. 4. The most probable, and the generally received opinion is, that St. John was banished into Patmos in the reign of Domitian, and by virtue of hisedicts for persecuting the Christians, in the latter part of his reign, and that he had the Revelations contained in the Apocalypse on that occasion; but the book itself could not have been published till after St. John's release and return to Ephesus. All antiquity, says Mr. Lampe, is agreed that St. John's banishment was by order of Domitian. Irenæus, Origen, Eusebius, and various other ancients, refer the banishment of St. John to the latter part of the reign of Domitian; and they concur in saying, that he there faw the Revelation. As Domitian died A.D. 96, and his persecution did not commence till near the end of his reign, the Revelation

...
A P O C A L Y P S E.

Revelation seems to be stiply dated in the year 95 or 96, in the last of which years Mill, Baffle, and Le Clerc place it. Mr. Lowman supposes, that he had his visions in the isle of Patmos, in the year 95; Dr. Lardner refers the visions recorded in this book, and the publication of them, to the years of Christ 95 and 96, or 97. There are two other opinions, which shall be merely mentioned, because they are not supported by any sufficient authority, that refer the fulfillment of St. John to Patmos, the one to the reign of Trajan, and the other to that of Adrian. Mr. Wetstein (N. T. t. i. p. 746.) favors the opinion of those who have agreed that the Revelation was written before the Jewish war; and in this case, he says, it is likely that the events of that time should be foretold in it. But upon this supposition, Dr. Lardner is of opinion, that it was not necessary the destruction of Jerusalem, and the calamities attending it, should be foretold in this book; because our blessed Lord’s plan predictions, and symbolical prefigurations of these events, had been recorded by no less than three historians and evangelists before the war in Judea broke out. “If we consider the Apocalypse as a divine work,” says Michaelis, “I think we must confine our choice to those dates which precede the commencement of the Jewish war; for thus only shall we be enabled to show that its first prophecies were fulfilled in a short time. And I grant, that if it is referred to the reign of Claudius, the explanation of it is still easier than when it is referred to the reign of Nero; for the curiosity predicted (ch. vi. 6) is derogative of that which took place in the time of Claudius. If it be considered as a mere human invention, it may be either ascribed to Cerinthus, or attributed to some unknown writer, who lived between the time of Papias and that of Justin Martyr; in the latter case, it might have been written in the reign of Hadrian. But if it be really a forgery, if it contain prophecies of the Jewish war, made after the events themselves had taken place, we have reason to wonder, that the author did not more circumstantially, and that he appears so little acquainted with the events of that war.”

The book of the Revelation, notwithstanding the pains which have been taken by men of ability and learning to explain it, seems yet to the generality of Christians very obscure; and many look upon it as a sealed book still, never to be explained to any certainty or satisfaction. A great critic, Scaliger, said, that Calvin was wise because he did not write upon the Revelation. And another (Dr. Whitby), who has written with great reputation on the other books of the New Testament, confesses he did not do it for want of wisdom; because, says he, “I have neither sufficient reading nor judgment to discern the intentness of the prophecies contained in that book.” Michaelis has arranged the explications of the Apocalypse, considered as a divine work, under the following classes. To the first class may be referred all those commentaries which are fashionably among Protestants, and according to which, the Apocalypse contains prophecies against the pope and the church of Rome; and in the commentaries belonging to this class, the prophecies in the Apocalypse are considered as fulfilled literally. To this class of commentators we may refer Medle, Sir Isaac Newton, Lownes, bishop Newton, Hurd, &c. &c. and many other Protestant writers. To the second class belong those commentaries, which confine the prophecies of the Apocalypse to the three first centuries, at least such as relate to persecution and punishment: for the happy Millennium may, according to these commentaries, be made to commence with the conversion of the Conquintante the Great. Commentators of the third class find in the Apocalypse nothing but the destruction of Jerusalem, and the flight of the Chaldeans from that city to Pella before the commencement of the siege. The book of Revelation, according to the interpretation of the best commentators, comprehends a much longer period than has been assigned to it by those who suppose that the expressions “which must shortly come to pass,” and “the time is at hand,” and the like, point out a very short period: so that the whole prophecy should be accomplished in a few years after the vision. These explications will, indeed, show that the accomplishment of the things foretold in this prophecy was soon to begin, but determines nothing concerning the time of their termination, the duration of which is much longer, and reaches from the time of the vision to the day of judgment. The book itself seems also to shew farther very plainly the order of the several prophecies, according to their several periods, as well as the whole duration, from the time of the origin to the fulfilling of the whole mystery of God’s providence towards the church. The Revelation begins, according to Mr. Lowman, by opening the sealed book, which describes the future state of the church in seven successive periods.

The first period shows the state of the church under the Heathen Roman emperors, from about the year 95 to about the year 333; and comprehends the opening of seven seals. The first seal represents a white horse and rider, having power to take peace from the earth, denoting the first memorable judgment on the persecutors of Christianity, in the destruction of the Jews under Trajan and Hadrian, from 100 to 138. The second seal represents a black horse and its rider, having power to take war. The third seal represents a yellow horse and its rider, having power to take famine; the fourth seal represents a pale horse and its rider, having power to take death, signifying a great mortality and pestilence, in the reigns of Maximin and Valerian, from 235 to 270. The fifth seal represents the souls of the martyrs under the altar, describing the severe persecution in the reign of Diocletian, with an encouragement to constancy. The sixth seal represents earthquakes, &c. signifying great commotions in the empire, from Maximin to Constanine the Great, who put a period to the persecution of Heathen Rome. The interval between the first and second periods represents an angel sealing 144,000 with the seal of the living God; signifying great numbers forsaking the idolatrous worship of the Heathen Roman empire, and embracing the profession of Christianity.

The second period reveals the state of the church and providence in the times following the reign of Constanine, during the invasion of the empire by the northern nations and the rise and progress of the Mahometan imposture, till the flat put to it in the western empire; extending from the year 337 to 775, and denoted by seven trumpets. The first trumpet represents hail and fire mingled with blood, signifying great storms of war falling upon the empire, and the blood that was shed in the realms of the Conquintante family and their successors, till things were settled under Theodosius, from 379 to 379. The second trumpet represents a mountain burning with fire, call into the sea, whereby it became blood; denoting the invasion of Italy by the northern nations, and taking the city of Rome by Alaric, from 399 to 412. The third trumpet represents a burning star falling upon the rivers, which became bitter; signifying the ravages in Italy, putting an end to the Roman empire, and founding a kingdom of Goths in Italy itself, from 412 to 493. The fourth represents a third part of the sun and
and mean darker, signifying the wars in Italy between
Julianus's generals and the Goths, whereby the exarchate
of Ravenna was erected, and the remaining power and
authority of Rome quite disappeared, from 355 to 568. The
fifth represents the bottomless pit opened, and hell is com-
ing out of it, signifying the rise of the Mahometan reli-
gion and empire, and the great progress of both till a flop
was put to them by a contest for the seesion, from 568 to
576. The sixth trumpet represents four angels loosed,
which were bound in the Ephphates, signifying the reunion
of the divided Saracen powers in the invasion of Europe
by them, and threatening the conquest of it, till defeated
by Charles Martel, from 632 to 720.
The third period reveals the state of the church and pro-
deence, in the times of the last head of Romish government,
represented by the beast, for 1260 years to its final overthrow,
from about the year 750 to about the year 1060. The sealed
book opened by the lamb, and given to St. John to eat,
depicts a further revelation of what was to follow, in order of
time, in the end of the world. There are three general descrip-
tions of this period in the sixth, ninth, and twelfth chapters.
The first signifies the corrupt state of the church, and the confu-
sion of some faithful witnesses to the truth, though under severe
persecutions, during the whole of this period. The second
represents a woman forced to fly into the wilderness for
safety, and protected there 1262 days, signifying the per-
secution and preservation of the church during the same
period. The third description represents a monstrous wild
beast rising out of the sea, with seven heads, ten horns,
as many crowns and titles of blasphemy, who was to continue
42 months, signifying that new Roman power, which should use its authority to promote idolatrous worship,
and to persecute all who would not submit to it, and should be
supported by another power like to its own form and constitu-
tion during the same period. In the sixth chapter, the
chorus of the heavenly church celebrates in an hymn the
happiness of those who remain faithful and constant; and a
minister or angel is represented as coming down from hea-
von, to declare the certain and severe punishment of the en-
mies of truth and pure religion in this period. In the seventh
chapter, seven angels are represented as receiving seven cups
full of the wrath of God; signifying that the enemies of truth
and pure religion in this period shall be severely pun-
ished in the course of it, and be utterly destroyed in the
end. The seven angels pour out their vials or cups: the first
vial poured on the earth, and on the worshippers of the beast,
denotes great commotions through the whole empire, under
the family of Charles the Great, by which that family be-
comes extinct, and the empire and crown of France are
transferred to other families, from 830 to 988. The second
vial poured on the sea, signifies the great bloodshed of the
holy war, to recover Jerusalem from the Saracens, from
1040 to 1160. The third vial poured on the rivers and fountains,
signifies the bloody civil war between the Guelfs and Gibellines,
the papal and imperial factions, when the pope were driven out of
Italy into France, from 1200 to 1377. The fourth vial poured on the sun, denotes the long
wars in Italy, Germany, France and Spain, occasioned by
a long schism in the papacy; the Turks taking Constantin-
pole, and putting an end to the eastern empire; and planetary
dicalese occasioned by intertemperate heat, from 1378 to
1530. The fifth vial poured on the earth or throne of the
death, signifies the desolation, and the total abolition of it
by the principal states of Europe, in opposition to the papal
authority, from 1560 to 1650. The sixth vial poured on the
river Euphrates, makes way for the kings of the East; this, in
the order of the prophecies, from hence to be yet future; but may
probably mean some invasion of the pope's dominion from its
colquall boundary on the Adriatic, from 1670 to 1850. The
seventh vial poured on the air, the seat of Satan's empire;
describes the utter ruin of this perfecting, idolatrous, go-
vernment, or mythical Babylon, at the end of this period,
from 1853 to 2016.
The fourth period is described in the eighth chapter; an
angel being sent from heaven to shut up Satan in the bottom-
less pit, as in a secure prison, for 1000 years, during which
time there will be a very happy state of the church in purity,
peace, and prosperity.
The fifth period terminates the 1000 years of the church's
prosperity, when Satan will be loosed again for a little time,
and a new attempt will be made to revive the corruptions at
the church, and a spirit of persecution, which shall end in the
final destruction of Satan's power, and of all the enemies of
peace and true religion.
The sixth period comprehends the general resurrection and
final judgment, and the everlasting destruction of the wicked.
The seventh period concludes the whole prophecy, with the
vision of new heavens and a new earth, representing in
strong images, the extent, fecundity, riches, and grandeur
of the heavenly Jerusalem; signifying the consummation of
the heavenly state; and the sure reward of all who shall be
found faithful and constant in the true religion of Jesus
Christ. Such is a specimen of the interpretation of the
prophecies of the Apocalypse, given by Mr. Lowman, a judi-
cious and approved writer on this subject; but the meaning
serves to particular parts and prophecies of this book by
different commentators, is very various. On this article the
reader may consult Newton's Observations on the Apoc-
alyse. Mr. Horby, in his Apocryphal, p. 438—491. Mede's Works. Lowman's Paraphrase and Notes
on the Revelation of St. John, prefixed and Lardner's
Works. Michaela's Introduction to the New Testament, by
There have been several other works published under the
title of Apocalypses. Sozomen mentions a book used in
the churches of Palestine, called the Apocalypse, or Revelation
of St. Peter. He also mentions an Apocalypse of St. Paul,
which the Coprus retain to this day. Eusebius also speaks
of both these Apocalypses. St. Epiphanius mentions an
Apocalypse of Adam; Niphonius, an Apocalypse of Eileus;
Gratian and Cedrenus, an Apocalypse of Memes, another of
St. Thomas, and another of St. Stephen; St. Jeron, an
Apocalypse of Elias.
Porphyry, in his life of Plotin, makes mention of the Apo-
calypses or Revelations of Zoroaster, Zoi'trias, Nicotius,
Alcogenes, etc.
APOCARITES, from άποκαριω, I cut off, in Ecclesiastical
History, denote those who affected that the human soul is
part of, or derived from the substance of God.
The Apocarites are ranked as a branch of the Mani-
archs.
APOCARPSAM, in Natural History, a name given by
the ancient Greeks to a poisonous drug, called also some-
times simply carpafum; it was the exudation of a tree grow-
ing in the country of the Alyphes, and was so nice the
fifth myth, that it was often mixed with it, and many lives
were lost by admixturing it as myrrh. The wood of the tree
which produced it was also poisonous, though in a less degree,
and was called by the same writers apocarpsam, as the wood
of the balm of Gilead tree is apopalsamum.
APOCATASTASIS, from apokatasthen, I restore, de-
notes the entire restitution, or reintegration of thing.
In
In this sense, we read of the apocatastasis of the world, or of all things.

**Apocatastasis.** Among **Afternoons**, denotes the period of a planet, or the time wherein it returns to the same point of the zodiac from which it set out.

**Apocatastasis** is also used in Medicine, to denote the subduing or ridding of a thing.

In this sense, we read of the apocatastasis of urine, the apocatastasis of tumours, and other diseases.

**Apothephrasis.** In general this sense, denotes the name with catharsis, or exhausion.

In this sense, we read of apocatastasis of bile, a symptom mentioned by Thucydides in the plague of Athens.

Quintus defines apocatastasis, a purging upwards and downwards, without sufficient authority. Hence also apocatastasis, a denomination sometimes given to what we otherwise call simply cathartics.

**Apothecarys.** In Medicine, the fourth order of the fourth class, or beatores, in the arrangement of species, by Dr. Callen; comprehending those which have a flux of blood or some other humour, more abundant than usual, without pyrexia, or an increased impulsion of fluids. This order includes the following genera, viz. profulfo, or a flux of blood; ephidrosis, or a proternatural evacuation of sweat; epiphora, or a flux of the lachrymal humour; ptyalismus, or a flux of saliva; ancreus, or an involuntary flux of urine without pain; and gonorrhoea. See the several articles.

**Apotheosis.** From από and θέος, I have, in *Civil Law*, denotes an acquisition or receipt given by the creditor to his debtor for money paid: in which sense the word stands contradistinguished from *antapochia*, which is given by the debtor to the creditor. Reurnier and Zieglerius have dissertations de apothesi.

**Apotheculumis.** From από and ηθελεῖα, I extract the juice, in *Pharmacy*, denotes an infusated vegetable juice; answering to what is called in the flaps a *θελέ*. APOCOPÉ. Compronounced of the proposition από, and the verb από. I cut, a figure in *Grammar*, wherein part of the end of a word is cut off; as in *die* for *dies*; fraud for *fraudem*; nil for *nilium*, etc. for *apocope*. A like retenclion at the beginning of a word is called *apophasis*.

*When the apocope is marked with a superior comma* (called an *apophaisis*), the word is said to be *apophaezed*; as *theo* for *theo*.

*Apoptosis.* From από and οτινος, I am sick, in *Surgery*, is synonymous with *Enteropathy*.

**Apothecarius.** From από and *σεκερ*, a sacchar, in *Antiquity*, an officer appointed to carry or deliver the messages, orders, and answers, of a prince or emperor. Hence he is usually called *reponens*, q. d. *answerer*.

The apothecarius afterwards became the emperor's chancellor, and kept the seal. In the barbarous Latin we sometimes meet with *secressa*, secretary, for apothecarius. Zomarus defines apothecarius, secretary for foreign affairs; being the same with what Vopiscus, in the life of Aurelian, calls *natarius*.

The title of apothecarius became at length appropriated as it were to the pope's deputy, or agent, who resided at Constantinople to receive the pope's orders, and the emperor's answer.

St. Gregory was apothecarius of pope Pelagius, at the time when he composed his morals on Job. The apothecarius did the office of the modern *nuncio*. Sometimes, however, he held the rank and quality of the pope's *legate*.

The institution of apothecarius seems to have been in the time of Constantine, or not long after, when the emperors being become Christians, foreign churches had more occasion to promote their faiths, at court than formerly; at least we find the office of *nuncio* by the law in the time of Justinian.

In one of the novels, it is recorded, that as no bishop was to be long absent from his church without special command from the emperor, if any one had occasion to negotiate any ecclesiastical cause at court, he should prefer his petition, either by the apothecarius of his church appointed for such purpose, or by the emperor, or some of his clergy sent expressly. In imitation of the apothecarius of churches, almost every monastery had their apothecarius likewise, whose business was not to reside in the royal city, as the former did, but to act as protectors for their monastery, or any member of it, when they had occasion to enter any appearance at law before the bishop under whose jurisdiction they were.

This appears from another of Justinian's novels, which requires the aforesaid in such cases to answer by their apothecarius or responsibles. Du Cange sets Bingham, Orig. Eccles. lib. iii. cap. 13. sect. 6.

The heresy of the Monothelites, and afterwards that of the Iconoclasts, broke off the custom of having a papal apothecarius at Constantinople.

**Apothecaries.** Literally denotes an *answerer*. Under this denomination were anciently included, not only the receipts of the emperors to the petitions of parties, but all kinds of decrees and mandates.

We have several books extant under the title of Apocrifus, and some in opposition to these under the title of Antapocrifus.

**Apothecaries.** Derived from *από* and *πολύς*, much, in *Medicine*, remedies ended with a repelling and altringent power, whereby they prevent the too great influx of humour to a part diseased. See *Repellents*.

**Apotheosis.** Something dubious; or that comes from an uncertain author, on which much credit cannot be reposed. We say, an *apotheosis* book, a jeu de mot, by *Ecclesiastical* or *Scientific* meaning such as are of inspected authority.

Vossius observes, that, with regard to the sacred books, none are to be accounted apocryphal, except such as have been admitted neither into the synagogues, nor the church, so as to be added to the canon, and read in public.

For this reason also the books of Sibyls were anciently called apocryphal, as being committed to the truth of the *decrews* alone; and for the like reason the annals of the Egyptians and Tyrians were called by the same name.

In the original meaning of the word, all the writings deposited in the temple were called apocryphal: because they were kept secret from the people.

When the Jews published their sacred books, they only gave the appellation of *canonical* and *divine* to such as they thus made public; and such as were still retained in their archives they called apocryphal, for no other reason but because they were not public; so that they might be really sacred and divine, though not promulgated as such.

Thus in respect of the Bible, all works were called apocryphal, which were not inscribed in the Jewish canon of Scripture; and it is in this sense that St. Epiphanius is to be understood, when he says, that the apocryphal books are not put in the ark among the other inscribed writings. By the ark he is supposed to have meant not the ark of the covenant, but the common archives; for, according to Josephus, there was no ark in the second temple. Nevertheless, the sacred writings were locked in the temple; and the apocryphal books were without doubt deposited in a distinct archive from that in which the canonical books were kept.

To this purpose Tertullian, speaking of the book of Enoch, says, that some did not own it, "quia nec in Judaeis armis moritorum. 
A P O C R Y P H A L.

morism admittitur;" and St. Austin (De Civ. Dei, l. 15.) says, that the canonical books of the Old Testament were preferred in the Jewish temple by the carefulness of the priests, who consecrated one another. Hence it is probable that the holy books were lodged in the temple in one archive, and the apocryphal in another place.

The word is derived from apocryphon, to hide; because the origin of such books was unknown, or because they contain fables mysteries not fit to be known.

The notion expressed by the word Apocryphal is taken, as we have just seen, from the Jews, and though the word itself is of Greek original, it cannot be explained by a Greek etymology, according to which it would convey a much higher idea, and signify writings preferred in the sacred records of the temple. It is merely a translation of the Rabbinical word ταυτος, which signifies "laid aside," so as not to be read in the synagogue; e.g., if a copy of the bible had two mistakes in one and the same page, it was allowable to correct them; but if there were three mistakes, the book must be laid aside (ταυτα τυπωμες), and they used the same expression for books, which were not supposed to be of divine authority. However the terms ταυτος and apocryphon, though similar in their original meaning, are very different in their use and application. The word ταυτος was applied to books divinely inspired, but we apply the term apocryphon, apocryphal, to those, whose divine inspiration is denied. It is true that the ancient Jews made a distinction, which varied at various periods, between books that were to be read, and books that were not to be read in the synagogue, which latter the Rabins called ταυτος, but those were included in the sacred canon, whereas we apply the term apocryphon to those that are excluded from it; and this term, as applied by modern writers to such books as have relation to the New Testament, signifies in general "spurious or supposititious," and in this sense differs in a still higher degree from ταυτος as applied to the books of the Old Testament. Fabricius in his "Codex apocryphus N. T." includes such writings as are supposed to be "a forgery," whereas those of a similar description, which have relation to the Old Testament, are contained in his "Codex Pseudepigraphus." This term is applied by Jerome to books which by their title or otherwise make some claim to be a part of sacred scripture, but are defective of a right to be so esteemed; and generally, or oftentimes, they are spurious. It is necessary, however, to distinguish between the terms apocryphal and spurious: a spurious work is that which is ascribed to an author who did not compose it; and apocryphal, whether written by the author to whom it is ascribed or not, is used in such the same sense with uncanonicals. Michaelis uses the term apocryphal for authentic, as distinguished from inspired; and merely in opposition to canonical; and he cautions against considering it as a term of contempt, or as deprecating a book to which it is applied. The exclusion, he says, of books called on this account apocryphal, from the canon, by no means derogates from their real worth; and although there are many under this title, which are manifestly spurious, there are others again which are highly deserving our esteem. Apocryphal books, according to the definition of St. Augustine (Contr. Faust. l. xi. c. 2. and De Civ. Dei, l. 15. c. 23. n. 4.), are not such as are of authority (or received by the church,) and are kept secret; but they are books whose original is obscure, and which are distinguished of proper testimonials; their authors being unknown, or their character either heretical or supposititious. The term apocryphal, which is variously used, is sometimes applied to those books that are not in the canon, (see Canon:) and of these there are two classes, viz. that of useful books, which may be read for the edification of the faithful, though doubtful and opposed; and that of the spurious pieces which are heretical and full of errors. Origen calls all the books which are out of the canon, apocryphal. Encheclus seems to use it for those wicked books that were composed by heretics, and which have given rise from those which are cited by ecclesiastical writers. Gregory Nazianzen, Athenæus, Epiphanius in the 5th Her. &c. Ruffus, and most of the modern Greeks, give the name apocryphal to such books only, as are apparently spurious and wicked; and usually denote those which are good and useful, ecclesiastical, though they were not received by all the churches as canonical. On the other hand, Cyril, Epiphanius in his Treatise of weights and measures, Jerome, the African Fathers, mult of the Latins, and Antiochus among the Greeks, attribute the term apocryphal in general to all the books which are not in the canon. St. Augustine distinguishes two sorts of canonical books; those which are received by all the churches, and those which are only received by some. Sixtus of Siena likewise distinguishes them into two classes: the proto-canonical, which have been always received and were never questioned; and the deuter-canonical, which were formerly doubted, but have been since admitted into the canon. All the rest, according to this author, are apocryphal, though this term had been sometimes applied only to heretical books. Mr. Jones lays down the following criteria or tells, by which we may determine whether any books are apocryphal or spurious, or not. That book is apocryphal, in which are found any contradictions,—which either contains any histories, or proposes any doctrines contrary to those which are certainly known to be true:—which contains things ludicrous or trifling, fabulous or silly relations:—which mentions facts that were later than the time in which the author, whose name it bears, lived:—the style of which is different from, or contrary to, the style of the author whose name it bears, in his known and undoubted writings:—the idiom and dialect of which are different from the known idiom or dialect of the author whose name it bears, or the country where he lived:—which manifests a disposition in its author, different from the known temper of the author whose name it bears:—and which for the most part is transferred or stolen out of another.

As the number of books in the Jewish canon was equal to the number of Hebrew letters, it amounted to 22; and that this number might not be exceeded, the book of Ruth was joined to that of Judges, and the Lamentations to the prophecy of Jeremiah. The books, therefore, that were not contained in this number, were excluded from the canon, and deemed apocryphal. The ancient catalogues of the canonical books of the Old Testament, which are to be met with in Christian writers, whether Greeks or Latins, are conformable to the canon of the Jews, and contain no other books: such are those of Melito bishop of Sardis, of Origen, of the council of Laodicea, of Jerome, &c. &c. The first catalogue in which the books of Wisdom, Ecclesiasticus, Tobit, Judith, and the two Maccabees were admitted as canonical, and as having the same authority, is that of the 2d council of Carthage, A. D. 397, which confirms the decree of the council of Hippo, A. D. 393, in which these books were received into the canon. St. Augustine, according to the authority of the African church, reckons all these books as canonical. Pope Innocent I. on behalf of the church of Rome, places the fame books in the canon of the Old Testament, as did also pope Gelasius in the council held A. D. 494: and moreover, the decree of pope Eugenius, and the canon of the council of Trent, agree with the canon of the council of Carthage, and with the decree of
of pope Innocent, and rank the above mentioned books among those of the Old Testament. See Ecclesiasticus, Judith, &c.

Among the books which have been wholly thrown out of the canon of holy scripture, we may mention a part of the book of Daniel, which the Jews rejected, containing the prayer of Azarias, and the song of the three children in the fiery furnace, which begin at the 24th verse of the 3d chapter, and end at the 59th: the history of Susanna, related in the 13th chapter; and of Bel and the Dragon, in the 14th and 15th. These subjects are not in the Hebrew or Vulgate text, nor in the Greek version of the Syriac, but are taken out of the Greek version of Theodotion, which was then used by the church, in Daniel's prophecy, as St. Jerom has observed. Africanus, Eusebius, and Apollinaris, have rejected these narrations, not only as being of dubious pseudepigraphal nature, but the whole number amounts to seven. The apocryphal books enumerated in the 6th article of the church of England, are the 3d and 4th of Esdras, the book of Tobias, that of Judith, the rest of the book of Esther, that of Wisdom, that of Jubes the son of Sirach, Baruch the prophet, the Song of the three children, the story of Susanna, of Bel and the Dragon, the prayer of Manasseh, and the first and second books of Maccabees. These books, by the same article, the church doth read and hear for the instruction of men, but do not apply them to establish a doctrine. Accordingly in the table prefixed to the Common Prayer, and appointing the lections, they are directed to be read in the months of September, October, and November. It appears, however, that in the Common Prayer of Edward VI. there was for Nov. 22d and 23d, no Bel and Dragon, no history of Susanna; but the order proceeded from Baruch to Jeremiah. The apocryphal books are prohibited in the other reformed churches. The Puritans, in the reign of queen Elizabeth, disliked and objected to the reading of these books in the church.

The spurious and apocryphal books, composed in the early days of Christianiety, published under the names of our Saviour, his apostles, their companions, &c. &c. and mentioned by the writers of the first four centuries, under the titles of gospels, epistles, acts, revelations, &c. &c. are numerous. Most of them have been long lost, and some few are still extant, to which class belong our Saviour's letter to Abgarus; his letter, which fell down from heaven at Jerusalem, directed to a priest named Leopas, in the city Eris; the constitutions of the apostles; the creed of the apostles; the apocryphal epistles of Barnabas, Clemens, Ignatius, and Polycarp; the shepherd of Hermas; the gospel of the infancy of our Saviour; the gospel of the birth of Mary; the prot-evangelium of St. James; the gospel of Nicodemus; the martyrdom of Thecla; or acts of Paul; Abdis's history of the twelve apostles, or the acts of Pilate; St. Paul's epistle to the Laodicceans, and St. Paul's five letters to Simeon, &c.; the others, that are not extant, are enumerated by Mr. Jones, adb infra. These books were not much used by the primitive Christians. There are no quotations of them in the apocryphal fathers, i.e. Barnabas, Clement of Rome, Hermas, Ignatius, and Polycarp, whose writings reach from about the year of our Lord 70, to the year 125. Some of them are mentioned, but not cited, by Irenæus and Tertullian. Several of them are mentioned and quoted by Clement of Alexandria and Origen, but not as having authority, and sometimes with expressions of disapprobation. Eusebius mentions some of them, and says, that they were of little or no value, and that they were never received by the founder of the Christian part of Christians. Athanasius, without naming any of them, paffes a severe cenure upon them in general, and from copies of them with diff like and cence. We may observe further, that these books, so far from militating against the evangelical history, confirm it; for they are written in the names of such, as our authentic scriptures say, were apostles, and companions of apostles; and they all suppose the dignity of our Lord's person, and a power of working miracles, together with a high degree of authority, to be conveyed by him to his apostles. It ought also to be considered, that few, if any, of these books were composed before the beginning of the second century. As they were not composed before that time, they might well refer to the commonly received books of the New Testament, as most of them certainly do; and therefore, instead of invalidating the credit of our books, they really bear testimony to them. All these books are not properly spurious, that is, ascribed to authors who did not compose them; but as they were not composed by apostles, nor at first ascribed to them, they may be fitly called apocryphal; for they have in their titles the names of apostles, and they make a splendid pretence of delivering a true history of their doctrine, discourses, miracles, and travels, though that history is not true and authentic, and was not written by any apostle or apostolical man. Moreover, we may account for the publication of these apocryphal or pseudepigraphal books, as they were unquestionably owing to the fame of Christ and his apostles, and the great succcess of their ministry. And in this respect the case of the apostles of Christ is not singular; many men of distinguished characters have had discourses made for them which they themselves knew nothing of, and actions imputed to them which they never performed; and eminent writers have often had works ascribed to them, of which they were not the authors. Christians of former ages exercised a laudable caution and circumspection with regard to books of doubtful authority. For a good while, the epistle to the Hebrews, some of the Catholic epistles, and the revelation, were doubted of by many; when other books of the New Testament were universally acknowledged. Upon the whole, the books, now and for a long time called apocryphal, afford no valid argument against either the genuineness or the authority of the books of the New Testament, generally received as written by apostles and evangelists; but they sanction the truth of their genuine writings, and the reputation of their character; they confirm the general account given us in the canonical scriptures, and thus indirectly establish the truth and divine original of the gospel.

The writing of books under spurious names, and obtaining them for the works of inspired authors, though once reputed laudable, and consecrated under the name of pious fraud,
APO


Wolius has given the literary history of the apocryphal books, their various editions, translations, commentaries, &c. See also Jones’s Canon, vol. i. and vol. ii. Dupin’s complete history of the Canon, &c. ch. i. Lardner’s works, in various pieces. Michaelis’s Intro. in vol. 1. p. 170. p. 376.

APOCYNUM, (αποκολομη), because it is supposed to kill dogs, in Botany, Dog’s-bane. Lin. gen. 325. Schreb. 426. Juli. 146. Clara petandria digollta; nat. order, composita; species. Jaff. Gen. Char. cail. perianth, one-leaved, five-parted, acute, short, permanent; cor. monopetalous, bell-shaped, feminiquinquefoliata; divisions revolute; nectary, five glandular oval corpusculae surrounding the germen; flum. filaments very short; androces oblong, erect, acute, converging, buli at the base; pist. gerns two, ovate; styli, short; filigria roundish, buli at the tip, mucro, glued to the androces; per. follicles two, long, acuminate, one-valved, one-celled; seeds very small, numerous, crowned with a long down: receptacle subulate, very long, rough, free.

Effren. gen. char. cor. bell shaped; nectaries five, alternate with the flaments.

Species. 1. A. struthiospermum, tutsian-leaved dog’s-bane; flum straightished, herbaceous, leaves ovate, smooth on both sides; cymes terminating; its items are erect about three feet high; leaves opposite; flowers white, with purplish nectaries. If flies alight on this plant they are frequently entangled by the glutinous matter and destroyed. Hence this plant has been called Herbe du puce. It is a native of Virginia and Canada, flowering from July till September: a perennial, cultivated by Miller, in 1731.

2. A. cannabim, hemp dog’s-bane; flum straightished, herbaceous; leaves oblong; cymes lateral, longer than the leaf; items about two feet high; leaves in pairs, smooth, and like the former abounding with a milky juice; flowers small, of an herbaceous white colour, and not having an handsome appearance. The plant is only cultivated for the sake of variety. It flowers about the same time, and is a native of the same countries as the former species. The Indians of North America use this species for the same purpose as we do hemp. It was cultivated by the duchess of Beaufort, in 1699. 3. A. hypericifolium, St. John’s-wort-leaved dog’s-bane; flum straightished, herbaceous; leaves oblong-cordate, smooth; cymes shorter than the leaf. Martin’s Miller’s Dict. A. fiebericum, Lin. filyl. Jacq. hort. 3. 37. 1. 66 an annual, a foot and a half high, with opposite, sharpish, fimbriate leaves, and small inodorous flowers. A native of North America, cultivated in 1756, by Miller.

4. A. speculum, spear-leaved dog’s-bane; flum straightished, herbaceous; leaves ovate-lanceolate; a perennial, about two feet high; leaves opposite, smooth; flowers in small umbels, purple or white, appearing in July and August. It grows in the islands of the Adriatic. Cultivated here in 1699. 5. A. distans, dog’s-bane; flum straightished, herbaceous; leaves oblong-cordate, smooth; cymes shorter than the leaf. Mar-
wife the roots are apt to rot in winter. The fourth fort
will also live in the open air, provided it be planted in a
warm situation and dry soil. The spring, before the flims
fhoot out, is the best time to remove it. The other species
are tender, and must be constantly kept in a hot-house,
plunged in the tan-bed. They may be propagated by cut-
ingst, during the summer months; but should be laid to dry
in the flove three or four days before they are planted.
When the seeds are obtained from their native places, they
should be sown in pots filled with light sandy earth, and
plunged into a tann-pit; in a month or five weeks they will
appear, and should then be watered sparingly. As they
advance, they will require larger pots; and the second
year the plants will generally flower, and some of them
make a fine appearance. Martyn Miller's Dict.

APODAGYN. Sec Asclepias, Cepheugia, Cyann-
chum, and Echites.

APODA, in Ornithology, a species of Paradise, called
the greater bird of paradise. The face feathers are longer
than the body; the two middle tail feathers long and feta-
ceous. Gmelin. This is called Mammastia, by Griffon and
Marangraze; Paradice Avis, by Seba, &c.; Oiseau de Par-
radis, by Buffon; bird of Paradise, by Willughby; and
Greater Bird of Paradise, by Albin and Edwards.

This bird appears from the plumage to be as large as a
pigeon, but the body scarcely extends in size that of thethurn.
The length is twelve inches, the bill greenish yellow, and
an inch and an half in length; its eyes are small; head and
neck covered with short thick feathers, of which those on
the head and hind part of the neck are of a pale gold colour.
The base of the bill is surrounded with black; front of the
neck green; lower part of the neck, back, wings, and tail
are chestnut, deepseall on the breast, where it assumes a tint
of purple. From under the wings spring a great quantity of
feathers, which are loosely webbed, and appear like the her-
ring-bone; some of these are eighteen inches in length, and
different colours; but the prevailing tint is yellowsih
white. The legs are stout and of a brown colour.

The female is said to be like the male, except that the
webs of the two wire-like feathers in the tail are shorted.
They inhabit the Molucca islands, and those surrounding
New Guinea, and particularly that of Aroo. It is sup-
pofed they breed in New Guinea, from whence they emi-
grate in the wetter or dry monsoon, and return when the
easterly or wet monsoon commences. They are seen at
these times in flights of thirty or forty, with a leader at their
head, which is constantly seen flying higher than the rest.
During their flights, it is observed they take the advantage
of going against the wind, and have a cry like the starlings;
but should the wind shift, they are in great distress, and
croak like ravens, for their long capular feathers then be-
come rumpled, their flight is impeded, and they fall to the
ground, from which they cannot rise until they gain an
eminence, or into the water, from which they cannot extric-
te themselves. The natives, who make a trade of their
skins with the Dutch, watch this opportunity, and take
them in large numbers: the value of each to the people of
Aroo is a five-nail; but at Banda they fetch half a rix-
dollar apiece, and perhaps of late more, since it is the plume
of this species which has become a fashionable ornament to
the head-dres of the ladies in England. The food of these
birds is not certain; some say they feed on berries; others,
on butterflies; and others again, on small birds; the latter
of which is probable, as they are very courageous, and are
furnished with claws and beak of strength sufficient for that
purpose. They were formerly brought to Europe without
legs, and many were perfumed they never had any; but

the truth is, the legs being useless for the purpose of orna-
ment, the only motive for which they are taken, are torn
off on the foot, and thrown aside. They were worn in the
East Indies by people of distinction; the grandees of Peria
and Surat use them as sigarettes, and even adorn their horses
with them.

In Forrest's Voyage to New Guinea, &c. a smaller
bird of this kind is described as a native of Papua; Gmelin makes
it a variety only (3) of this species.

APODACRYTXA, from apo and cryt, a tear, in
Pharmacy, medicines proper to excite tears. Some also use
the term apodacryt, for remedies proper to suppress tears.

APODECTE, from apo d?gyn, a receiving, in Antholo-
ogy, a denomination given to ten general receivers, appointed
by the Athenians, to receive the public penalties, taxes, debts,
and the like.

The apodCTA had also a power to decide controversies
arising in relation to money and taxes, all but those of the
most difficult nature and highest concern, which were referr-
ed to the courts of judicature.

APODECTETI, in the Athenian government, officers
appointed to see that the measures of corn were jut.

The apodetetI were nearly related to the aeropami.

APODEMCA, from apo and emka, the doctrine or
science of travelling, whether for knowledge or devotion'sake.

Jo. Moraker has published an apodemica. Ranzovius, a
methodus apodemica.

APODES, in a general sense, from apo and des, denotes
things without feet. Zoologists apply the name to a fabu-
loss fort of birds said to be found in some of the islands of
the New World, which being entirely without feet, support
themselves on the branches of trees by their crooked bills.
The Germans and Dutch have also their apodes, a fort
of birds somewhat like swallows, whose legs and feet are so
very small, that they seem rather formed for creeping than
running.

APODES, is one of the four orders of fishes in the Lin-
nean distribution of animals. Their character is that they
have no bely fins.

APODICAL argument, or syllogism, signifies a
clear convincing proof, or demonstration of a thing. The
word is formed of apo d?gyn, I demonstrate.

APODICAL method, is used by some writers, to denote
the philosophical or sceptical method of teaching or writing.

APODIXIS, from apo d?gyn, I exclude, in Rhetoric, a
figure whereby we either pass over a thing lightly, or refer
it to some other time or place.

This is also called by Latin writers, rejeclio, e.g. Quid
ego senatum defendam, justices? Equidem debes, &c.
Again, "Quid ego senatum hoc loco defendam, justices? De
tud rectius, tum quum, &c.

APODISXIS, in Logisc, the rejection of such things as
do not necessarily belong to the question to be considered.

APODIPNE, or Apodepine, fongs which the Greeks
fing after supper: either to thank the Gods, or congratula-
te themselves for their good fare.

APODIXIS, from apo d?gyn, in Rhetoric, denotes an
evident proof, or demonstration of a point.

We have several books extant under the names of apo-
dixes; and some by way of answer to thefe, under that of
antapodixes.

APODIXIS, in Middle-Age Writers, denotes a receipt
for money paid. In which sense it amounts to the fame with
apodix.

APODIXIS is also sometimes used for a specimen or proof
of a thing.

APODOSIS, from apo d?gyn, I apply, in Rhetoric, makes
the third part of a complete exordium, being properly the
application, or reflection of the precept.

The apodyterium is the same with what is elsewhere called
apodyterium, and stands opposed to a bath, or a public bath.
All branches of baths are necessary for a Subsistent; so
that without thus, it can in no way be understood.

Aponosis is also used in the king of India, for that part
which makes the objection of the titles.

Aponosis is also used, in a literal sense, for the con-
sequent to a prothesis, or antecedent to a periphrasis.
Aponosis is also used for a return to something antec-
dent, or that went before.

This is otherwise called antecedent.

APODYTERIUM, a room or a bath, in Antiquity, a shifting
room, or apartment at the entrance of baths, or in the bath-
room, wherein persons dressed and undressed, either for baths, or for the gymnastic exercises.

This was otherwise denominated apothemum, gymnasion,
and apathetum.

Some will have the apodyterium to have been the same
with the consernum; but Vossius shows they were two
different places.

APOGEE, formed of apo, from, and gee, earth, in Astro-
nomy, that point in the orbit of the sun, or a planet, which
is farthest distant from the earth.

The apoge is a point in the heavens at the extreme of
the line of the apsides; in which the sun, or a planet, is at
the greatest distance that it can be, from the earth, in its
whole revolution, and the opposite point to this is called the
perige.

The ancient astronomers, regarding the earth as the
centre of the system, chiefly considered the apogee and peri-
gee: the moderns, making the sun the centre, change the
apogee and perige for aphelion and perihelion.

The apoge of the sun is, therefore, the same with the
aphelion of the earth, and the perige of the sun the same
with the perige of the earth. The manner of determin-
ing the place of the apogee of a planet is exactly the
same with that for determining the place of the aphelion for
the sun and superior planets. See aphelion and planets.

The place of the apoge of the sun, at the beginning of
the year 1759, was, according to the tables of La Caille, 3° 8'
58.2'.

The quantity of the motion of the apogee may be found
by comparing two observations thereof made at a great
distance of time; converting the difference into minutes,
and dividing it by the number of years elapsed between the
two observations: the quotient gives the annual motion of the
apogee. Thus, from an observation made by Hipparchus
in the year before Christ 142, whereby the sun's apoge was
found 5° 32' of II; and another made by Ricci-
uoli, in the year of Christ 1645, wherein it was found
7° 26' of 59; the annual motion of the apogee is found
to be 1° 2'. See aphelion.

Its peculiar motion, with respect to the equinoxes, is,
according to the tables of La Caille, 1° 49' 10'. The
cause of this motion is the attraction of the planets, par-
ricularly of Venus and Jupiter, as M. Euler has shown in his
work: "On the inequalities of the earth," which obtained
the prize of the Academy of Sciences, in 1756.

The apoge of the moon, in 1750, was in 5° 21' 2' 32",
and its annual motion is about 1° 10' 39' 50"; and the re-
olution of the apogee, according to the tables of Mayer,
in relation to the fixed stars, is performed in 8 years, 311
days, or 3231 days, 0° 54' 57.5'.

Besides the progressive motion of the apogee of the
moon, astronomers have also considered the orbit of the moon
as subject to an equilibration of its apogee, joined to a
variation in its eccentricity. Horrox was the first author
of this ingenious hypothesis, which Newton adopted in his
"Principia," and upon which are founded Halley's tables
of the moon, and those of Flamsteed, which were published
by M. le Monnier, in his "Astronomische Institutionen;"
M. Euler was the first who substituted to this hypothesis an
equation more convenient, and called correction, the quantity
of which is 1° 26' 34". In order to explain the hypo-
thetical of Horrox agreeably to the principles of attraction,
it ought to be considered that the motion of the apogee of
the moon depends upon the diminution of the central force
of the moon towards the earth; so that the motion ought
to be the greatest when the line of the fictitious centre
with the line of the apogee, or when the place of the sun
corresponds to the apogee or perigee of the moon. When
in the quadratures, the motion of the apogee is the slow-
est, because the total diminution of the central force is then
the least; when the sun is at 50° from the apogee, the true
motion of the apogee is equal to the mean motion; but its
true place differs then the most from the mean place, and
the equation is the greatest, because it results from all the
degrees of velocity which the apogee has acquired to this
point. This equation, in the tables of Halley, amounts to
10° 18'. There is also an inequality in the place of the
apogee, which proceeds from the distances of the sun with
respect to the earth, and which is 3° 14.2' additive, when
the sun is at 3° from the apogee.

See Moon.

APOGRAPHI, a copy or transcript of some book or
writing. The word is formed of apo, ab, from, and graph, write.
In this sense apograph means opposite to autogra-
ph, as a copy to an original.

AFQGRAPHE, in the Ancient Law, was, when a
person being fined for money fipped for to the public,
pleaded that the charge was unjust, and withal produced
all the money he was poffessed of, and declared by what
means it came to his hands.

Suidas adds, that it is sometimes taken for an action
against such as neither paid the fines laid upon them before
the ninth pyrtanae following their sentence, nor were able
to give sufficient security to the city. Potter, Arch. Graec.
lib. i. cap. 23.

APOGRAHS, in the Roman Law, denotes a catalogue
or inventory of goods.

APOKERA, in Geography. See Cape Duxur.

APOKOPA, in Ancient Geography, a name given to the
Cape Baxos of the Portugeu, situate upon the coast of
Zinguebar.

APOLDA, in Geography, a town of Germany, in the
circle of Upper Saxony, and principality of Weimar, eight
miles N. W. from Weimar, and 40 S. W. from Leipzick.
N. lat. 50° 56'. E. long. 11° 22'.

APOLEPSIS, from apolepsin, I leave, in the Athenian
Law, an action of divorce; brought when a woman had
sued her husband.

APOLEPSIS, from apolepsin, I retain, in the Ancient
Phyle, denotes a retention of the blood or spirits, or an extir-
ation of the native heat of the veins.

APOLEPSIS is also a denomination of a species of apo-
plexy, wherein the speech, sense, motion, &c. suddenly
fails.
This seems to coincide with what is otherwise called a
Catalepsy.
APOLLINES, from πόλις, city, in Antiquity, those
condemned for life to the public works, or exiled into some
island, and thus divested of the privileges of Roman ci-
tizens.
APOLLINARIANS, Apollinarists, called also by
Epiphanius, Diocletian, in Ecclesiastical History, ancient her-
etics, who denied the proper humanity of Christ, and main-
tained that the body which he assumed was endowed with a
sensitive, and not a rational soul, but that the Divine
Nature supplied the place of the intellectual principle in
man.
This sect derived its name from Apollinaris, bishop of
Laodicea in the fourth century.
The Apollinarians have been charged with other opinions,
such as the Millenarian and Sabellian, the pre-existence of
the body of Christ, and the passion of his Deity; but eccle-
siastical writers are not agreed with respect to these
and other particulars. Their doctrine was first condemned by
a council of Alexandria, in the year 362, and afterwards in
a more formal manner by a council at Rome in 375: and
by another council in 378, which deposed Apollinaris from
his bishopric. Notwithstanding these censures, his doc-
tine spread through most of the churches of the East; and
his followers were subdivided into various sects. The ten-
ent against Apollinaris and his followers was confirmed by
a council held at Alexandria in 378, by an oecumencical
council, assembled at Constantinople in 381, as well as by
the council of Antioch in 379. In 388, the emperor The-
dofus enacted a law, forbidding them to hold assemblies,
and to have any ecclesiastics or bishops, or to dwell in cities.
The rigorous execution of this law, in concurrence with the
defects of different councils, reduced them to a very small
number, and their doctrine had no long duration. Dupin,

The doctrine of Apollinaris, viz. that the Logos, a
divine person, which descended from heaven, supplied the
place of a soul in Christ, is learnt or heard of in letters,
(Morellet's Letters, p. 53,) is plain and intelligible; and
answers much better than any other to the facts, which
assert that Christ took on him the destiny of Abraham—
was made in the likeness of man—God was manifest in the
flesh—he was in the flesh, in the likeness of sinful flesh—in
him dwelt the fulness of the Godhead; The Word was
made flesh—was incarnate. * * * All these texts of scripture,
" says Dr. Sykes (External Peace of the Church, p. 29, 30.),
" are, upon the Apollinarian scheme, natural, plain, and
easy; it teaches a most proper unity of person; and as making
the God-man, Jesus Christ, to be strictly one intelligent
agent. * * * It makes the very same person suffer and die,
that came down from heaven; which is the fundamental article
of the Christian religion. Mr. Whitton also says (see Ac-
count of the Convocation's proceeding against him, p. 87.),
"the scripture and earliest antiquity never affirm that Christ
took a human rational soul; they never say he took a whole
human nature; never say, he was in that sense a true and
perfect man; but that he was made flesh, had a body pre-
pared for him; was the Word, or a God incarnate; was
made in the likeness of man; was found in fashion as a
man, while he was the Word. Nay, Ignatius directly
affirms, that it was the Word, and not a human soul, which
inhabited in that body; and almost all the ancients agree in
the same doctrine; even Athanasius himself, before the
council of Nice. " Notwithstanding the pains that were.
taken to discourage this opinion, it appeared again in differ-
ent forms, in the Christian church, in the doctrine of the
Monarchies, who held, that Christ had only one will, which,
without doubt, is sufficient for one person.
APOLLINARIAN games. Apollinares lud. in Antiquity,
games at Rome, instituted A. D. 541, celebrated yearly in
honour of Apollo, on the fifth day of July, under the
direction of the pretor, in the Circus Maximus.
The occasion was a kind of oracle delivered by the pro-
phet Marcus, after the fatal battle at Cannae; declaring
that, to expel the enemy, and curb the people of an infec-
tious disease which then prevailed, sacred games were to
be annually performed in honour of Apollo. And that the
pretor was to have the direction of them; and the decennvriti
were to offer sacrifices after the Grecian rite.
The senate ordered that this oracle should be observed,
because another of the same Marcus, wherein he had fore-
told the overthrow at Cannae, had been verified; for this
reason they gave the pretor twelve thousand only out of the
public cash to defray the solemnity. There were sacrified
as ox to Apollo, as also two white goats and a cow to
Latona; all with their horns gilt. Apollo had also a col-
lection made for him, besides what the people, who were
spectators, gave voluntarily. The first pretor by whom
they were held was P. Cornelius Sulp. For some time they
were moveable and indetinute, but at length were fixed, un-
der the pretorship of P. Licinius Varus, to the fifth of July,
and made perpetual. Livy, xxxvii. e. 25. tom. iv. p. 75.
Ed. Drakenb.
The men who were spectators at these games, wore
garlands on their heads; the women performed their de-
votions in the temples at the same time; and at last they
caroused together in the vehicle of their house, the doors
flanding open.
The tradition reports, that at the first celebration hereof,
the people were suddenly invaded by the enemy, and
obliged to take to their arms; upon which occasion a
cloud of darts and arrows falling upon their enemies, the
Romans soon returned victors to their sport.
The Apollinarian games were only scenical; and at first
only observed with singing, piping, and other sorts of mu-
 sic; but afterwards there were also introduced all kinds of
mountebank tricks, dances, and the like, yet so that they
still remained scenical, no chariot races, wrestling,
or the like laborious exercises of the body, being ever prac-
ticed at them. Dansa, and others, confounded the ludi
Apollinares with the Actioi or Actian games.
APOLLINARES lud. was also a general name given to all
scenical games.
These were also called lud. liberale, and feenici.
They differed from the ludi theatralis, in that the former were celebrated with all sorts of plays, farces,
poems, recitations, &c. the latter only by dancing and
music.
This kind of Apollinarians had their share in almost all
the solemn games.
APOLLINARIS, CLAVDIIUS SULPITIUS, in Biography,
celebrated grammanian, was born at Carthage, and flour-
ished in the second century under the Antonines. He was
succeeded in his profession by his scholar Helvius Pertinax,
who afterwards became emperor; to him are ascribed the
verges prefixed to the comedies of Terence, and the follow-
ing epigram written upon the orders which Virgil gave
to burn his Æneid:
" Infelix alio ecceit prope Pergamon ignes,
E. p. e. l. a. Troja cremata rogo."
AULILIUS, or APOLLINARIUS, the elder, was a native of Alexandria, and flourished about the middle of the fourth century, as according to Cave, A.D. 362. He was distinguished, both as a grammatician and a divine. After having been a teacher of grammar at Berystus in Phoenicia, he became prebendary at Laodicea in Syria. Under the reign of Julian, when the Christians were forbidden the use of the Greek and Roman classics in their schools, he composed a grammar in a Christian form, and wrote many books in imitation of the ancients. He translated the books of Moses into Greek heroic verse, and wrote in the same manner the whole history of the Hebrews to the time of Saul, which he divided, like Homer’s Iliad, into twenty-four parts, to which he prefixed, in regular series, the letters of the alphabet. The remaining historical books of the Old Testament he exhibited partly in hexameters, and partly in a dramatic or lyric form, imitating the tragedies of Euripides, the comedies of Menander, and the odes of Pindar. Sozomen (Eccl. Hist. i. vi. c. 15) speaks highly of his talents and performances, and leads us to lament, in proportion to our confidence in his judgment, "works equal in number and merit to the ancient Greek models." See More. Cave, Hist. Lit. vol. i. p. 237.

APOLLINARIUS, of Apollinarius, the younger, the son of the former, was the disciple of Epiphanius thelothiphil, and taught grammar at Laodicea, of which city he was at length ordained bishop. At the time, viz. A.D. 362, when Julian issued the decree mentioned in the preceding article; he concurred with his father in rendering service to the Christians; and he is said to have put the gospels and the apologetic doctrine into dialogues after the manner of Plato. He also wrote commentaries on the book of Psalms, the Ecclesiastes, the prophecy of Isaiah, that of Daniel, (rejecting the stories of Sutana, and Bel and the Dragon, as not extant in Hebrew,) and that of Hosea, and likewise on several books of the New Testament. His apology for the Christian religion against Porphyry, in thirty books, is mentioned with commendation by Jerome and others. Some learned men have been of opinion, that he published a new Greek translation of the books of the Old Testament, compiled from the Greek versions that had been made before; but this does not seem to have been a fact, though Fabricius enumerates this as one of his works. Sozomen (Eccl. Hist. i. vi. c. 18, p. 623.) mentions a valuable work of this author, addressed to the emperor himself and the Greeks philosophers, intituled, "Of the truth;" in which he shewed, by reason alone, without alleging the divine scriptures, that they did not think rightly of the deity. It is said, that Julian writing to some Christian bishops concerning this book, made this remark; "I have read, underfoot and condemned:" to which he received this answer, "You have read, but you did not understand; if you had understood, you would not have condemned." Besides all these, Apollinarius wrote divers books against those called heretics; and he employed his poetical talents in composing short stanzas and hymns fit for festivals and for all feasts, on a variety of subjects; some of which were vied in their religious assemblies, and others were sung by the men at their works and entertainments, and by the women at their spindles. For an account of the doctrine of Apollinarius, and of the fact of which he is said to have been the founder, see Apollinarism.

The character of Apollinarius has been very differently appreciated by modern writers. Lord Chancellor King, the reputed author of "The Apolline Creeds," &c. calls him the great Apollinarius, the ornament and splendor of the church of that age, the most signalized champion for the faith, and an illustrious example of piety and virtue; by all esteemed the greatest man of his age both for learning and piety; a most accurate and nervous defender of the faith against all its enemies, whether heathens or heretics. Dupin says, he was beloved and esteemed by St. Athanasius, St. Baffi, St. Epiphanius, and all the great men of his age, for learning and knowledge. St. Jerome says, that he had often seen him at Antioch, that he honoured him, and that he learned many things of him. Philologorus, the Arian historiographer, says, that he and Baffi, and Gregory Nazianzen, defended the divinity of Christ better than any either before or after them; in comparison of whom, the great Athanasius was esteemed to be but a child; and the most considerate and esteemed of these three was this Apollinarius; and that these three were wanting in nothing necessary for understanding and reading the scriptures; and especially this Apollinarius, who understood the Hebrew language. He wrote against the Arians and other heretics, &c. in many volumes, overthrew heresies, and confuted errors opposite to the faith; and in thirty large and noble books, most convincingly baffled...
And the calumnies of Torpby: and his moral character was as conspicuous as either Gregory's or Balil's. His writings surpassed in beauty and strength every thing that had been written by Eusebius, or any of the ancients. Nevertheless he was excommunicated by George Bishop of Lardis, for taking the part of Athanasius against him. To these testimonies in favour of Apollinaris, we shall subjoin a very different kind of judgment formed concerning him by M. Tillemont. "He maintained to the end his integrity, and died in his heresy: so that we cannot admit the hope of any other lot for him, but the condemnation of hell." Dupin having mentioned Apollinaris's paraphrase of the psalms, adds, "All the other works of this author are lost, except some fragments. His error in all probability occasioned this loss: the catholicks had such a dread of the books of heretics, that they have not preserved so much as those which had no relation to their heresy, and which might have been useful to the church." If that be so (says the candid and impartial Dr. Lardner), we must acknowledge that the catholicks were to blame; it is like rooting up tares and good corn altogether. And we may hence receive this instruction, to be upon our guard that we admit not too great an avercion for men on account of difference of sentiment in things of a speculative nature: lest by violence in opposing error, we should obstruct the progress of knowledge, and the cause of truth which we are desirous to serve." Apollinaris died, according to Jeron, in the reign of Theodosius, and probably not long after the beginning of it, in 352, or soon after; for Epiphanius, in 370 or 377, calls him a venerable old man. Lardner's works, vol. iv. p. 350—397. Mohiën's Eccl. Hist. vol. i. p. 243, &c. Cave, Hist. Lit. vol. i. p. 250, &c.

APOLLINIS urb, or APOLLINIS PARVA, according to Ptolemy, or APOLLONIS according to the Itinerary of Antonine, or APOLLONOS according to Hierocles, in Ancient Geography, the capital of the fifty-second nome of the same name in the southern part of Upper Egypt, about twenty-five leagues nearly north of the great cataracts. M. d'Anville, Savary, and Denon, agree in assigning to it the situation of the present village of Edfon or Elph, governed by an Arabian sheik.

The site of this ancient city is singularly advantageous, as it commands the river and the whole valley of Egypt; and its magnificent temple, seated on a rising ground, towers over the rest like a large citadel which keeps the adjacent country in awe; and, indeed, it is known to the natives merely by the name of "the fortresses." The extent, majesty, magnificence, and high preëminence of this edifice, says M. Denon, surpassed every thing he had before seen in Egypt, or elsewhere. The building itself is a long suite of pyramidal gates, of courts decorated with galleries, of porticos, and of covered avenues, constructed, not with common stones, but entire rocks. The excellent preservation of this ancient edifice forms a wonderful contrast with the grey ruins of modern habitations built within its vast inclosure; a part of the population of this village being contained in huts built in the courts, and around the fragments of the temple. This temple is the most beautiful in Egypt, and, next to those of Thebes, the largest. As it was built at a period when the arts and sciences had acquired all their splendour, the workmanship of every part is equally beautiful, the hieroglyphics are admirably executed, the figures more varied, and the architecture of a higher order than in the Theban edifices, the building of which must be referred to an earlier age. At the foot of this greater temple, and on a much lower level, is a smaller one, at present almost buried; but in a hollow surrounded with rubble, there may be seen a little portico of two columns, and as many pilasters, a pristyle, and the façade of the temple enclosed within a palisaded gallery. A single column with its capital rising from the ruins to the height of forty feet above the portico, and the angle of a wall forty feet beyond, shews that there formerly existed a court in front of the temple. The gate, it is observed, are not exactly in the middle of the sides. It seems to have been dedicated to the evil genius: for the figure of Typhon is seen in relief on the four sides of the plinth which surrounds each of the capitals; the whole friezes and all the paintings within appear deforative of his detesting herself against the attacks of this monster. M. Denon has illustrated his description of these temples by appropriate drawings. See Denon's Travels into Upper and Lower Egypt, &c. vol. ii. p. 107. 297.

APOLLINIS urb, or APOLLONIS PARVA or Minor, another city of Egypt, called also Vicus Apollinis in the Itinerary. According to Ptolemy, it belonged to the forty-eighth nome of Coptos; and was situated between Coptos to the north, and Thebes to the south-west, on the right of the Nile. M. d'Anville refers this to the present situation of Kous. Denon found in the middle of the square the summit of a large and well-proportioned gate, sunk into the ground to the cornice. This single fragment, which must have belonged to a great edifice, and which appears larger than all the rest of the city, proves, says this traveller, that Kous was built on the site of Apollonopolis Parva. The other parts of the edifice are, without doubt, buried under the mountain of rubbish that is occupied by the present town. The inscription, engraved on the lintel of the gate, was posterior to the monument, and affords a curious instance of ingenious flattery in a preface of Upper Egypt, at the time of the Ptolemies; who, on account of some repairs twenty or thirty centuries after the building of the temple, ventured to dedicate it to his matters, to inscribe the gate with their names, and thus to transmit them to posterity. Denon's Travels, vol. ii. p. 236. 297.

APOLLINIS Farnum, or Temple of Apollo, a town of Lydia, according to the periples of Scylax, which became a bishop's see. This is also the name of a place of Africa propria, according to Ptolemy, situate probably north-east of Tabraca.

APOLLINIS insula, an island of Africa, according to Steph. Byz.

APOLLINIS lucas, a grove consecrated to Apollo in that part of Cilicaine Gaul called Tranapandana, among the Lubici, to the north-west of Vercellae.

APOLLINIS oppidum, a small town of Ethiopia, in the country of the Megabores, according to Pliny.

APOLLINIS Phisii portus, a port of Greece, attributed by Pliny to the Oxolocrians.

APOLLINIS promontorium, Ras Zebed, was situate to the east of Utica, and to the north of Carthage. Another promontory of the same name is placed by M. d'Anville after Ptolemy, in Mauritania Caesarianis, north-west of Cearea.

APOLLINIS regio, a name given to the country of Ethiop. Opus.

APOLLINIS templum, or Temple of Apollo, was situate in Thrace, and called Zenithium. Another of this name was situate in Lydia, upon the gulf of Myra. Another was in Thessaly, upon the Pelopisic gulf, near Pagaiz.

APOLLINIS urb, or city of Apollo, was a name given to Delos, called allo Aretne, in the isle of Delos.

APOLLO, in Entomology, a species of Papilio, in the section
A P O L L O.

A section Parnassus. The wings are white spotted with black: on the upper side of the posterior wings are four eye-shaped spots, and on the under-side six. It inhabits Europe and Sicily: and is the Papilio ursa of Pallas. Genitive.

Apollo, in Mythology, a pagan deity worshipped by the Greeks and Romans. Cicero (De Nat. Deor. l. i. n. 123. oper. t. i. n. 105, ed. Oviet.) distinguishes four deities of this name; the first and most ancient was the son of Vulcan, and the guardian of Athens; the second was the son of a Corybant, and born in Crete; the third was the son of Jupiter and Latona, who was born in the island of Delos at the same time with his sister Diana, and who was according to Ptochis, the most ancient of the three, and, in many respects, the most celebrated; the fourth was born in Arcadia, and called by the Areopag, Nomus, or the legislator, because he enacted laws for them. Of these four, the three last were Greeks, and the first an Egyptian, who, according to Herodotus, was the son of Osiris and Isis, and called Orus or Horus. Paulyanus agrees with Herodotus, and ranks Apollo among the Egyptian divinities. Diodorus Siculus also, after saying that Isis had invented the practice of medicine, adds, that she taught this art to her son Horus, named Apollo, who was the last of the gods that reigned in Egypt. Indeed, all the Greek fables and mythologies may be easily traced to Egypt. To this purpose, it is observed, that if the Apollo of the Greeks was said to be the son of Jupiter, it was because Horus, the Apollo of the Egyptians, had, for his father Osiris, whom the Greeks confused with Jupiter. If the Greek Apollo was reckoned the god of eloquence, music, medicine, and poetry, the reason was, that Osiris, the symbol of the sun among the Egyptians, as well as his son Horus, had there taught those liberal arts. If the Greek Apollo was the god and conductor of the muses, it was because Osiris carried with him, in his expedition to India, singing women and musicians. The parallel might be pursued, and sufficient evidence is thus obtained, that the true Apollo was that of Egypt. Cicero says (De Nat. Deor. l. ii. c. 27. oper. t. ii. p. 578.), that Apollo is a Greek name, and that he represents the sun; and that the sun is so called, because this luminary is alone so great compared with the other stars, or because this alone appears when it is riven, all the others being obscured. Accordingly the etymology may be deduced from a priv. and τοιχία many; as the Latins derive sol from Iouis, alone. Voifius thinks (De Idol. vol. l. i. ii. c. 17. p. 391.), that the Apollo of Greece and Rome was the same as the Abellon of the east; and Abellon was, in the etymological system of Bryan (Mythol. vol i. p. 17), a combination of the terms Ab-El-Eon, denoting "Pater summis Solis", or "Pater Deus Solis." The sun was also worshipped, adds this writer, under the title of Abaddon; which, as we are informed by the Evangelist, was the name as Apollo, or as he terms him (Rev. c. ix. v. 11), Μεσαμνοvl. Apollo has been peculiarly distinguished by the poets, in preference to the other deities; and many extraordinary discoveries and performances have been ascribed to him. He has been esteemed the inventor of all the fine arts, such as poetry, music, and eloquence, and regarded as the protector of the poets, musicians and orators. No one has performed like him on the lyre; and he has been thought to personify an intimate acquaintance with all the secret powers of medicine. The muses were under his protection, and he presided on Mount Parnassus at all their concerts. None of the gods was endowed to the same degree with himself, with the knowledge of futility; and therefore he was the god of divination; and had a greater number of oracles than any other deity. Of these the Delphian claimed the first rank on account of its antiquity, truth; and the perspicuity of its answers, as well as the magnificence of its Structure, the variety and value of its Anamnetes or oracles, and the multitudes that resorted thither. There were others at Ceira, Delos, among the Milesians, at Asae, at Chaos, at Larissa, at Beotia; at Cyno, at Cyrene, and Phoebus, at Oreus in Eubea, at Corycia in Tusc, at Hybla, at Thebes in Macedo; &c. He had also temples through all Greece and Italy; and he was honored and worshipped as the representative of the sun, among the Gauls and Britons. It has indeed been doubted whether Apollo was a red personage, or merely a symbolical deity representing the sun. Voifius (ubi supra) adopts the latter opinion, and maintains that there was never any other Apollo besides the sun; thus he was styled the sun of Jupiter, because that god was reckoned by the ancients, the maker of the world. His mother was called Latona, signifying "hidden," because all things were enveloped in the obscurity of Chaos, before the creation of the sun. He is represented as a beardless youth, because the sun never grows old and decrees; and his bow and arrows denote his piercing beams. Besides, according to this writer, all the ceremonies that were performed to his honour bore an obvious relation to the great source of light which he represented. It is in vain then, he concludes, to seek for any other divinity than the sun, which was adored under the name of Apollo. There is reason, however, to imagine, that there might have existed some illustrious personage named Apollo, who after his apotheosis was made the emblem or symbol of the sun; as we know to have been the case with respect to the Egyptian deities, Horus and Osiris.

To the distinguishing qualities above enumerated and ascribed to Apollo, the poets have joined beauty, graces, eternal youth, and the art of charming the ear by the sweetness of his eloquence, and the melodious sounds of his lyre, and of thus captivating both gods and men. Accordingly he is principally distinguished in ancient statues by the beauty of his face; and the gracefulness of his figure; and hence Virgil (Enn. iii. v. 115) calls him "the beautiful;" and Tibullus (l. ii. c. 3; v. 11), "the well-shaped god." We need not wonder then at the amours and love-conquests that have been attributed to him. His musical contests, and some of his other feats, will be related in their proper places, in the course of this work. See Marsyas, Midas, Pan, Python, and Thamyris.

Apollo is usually represented as a beautiful, beardless youth, with long hair (hence called "intinos and erinthus;"

Ovid. Tril. iii. 680), holding a bow and arrows in his right hand, and in his left hand a lyre or harp. He is crowned with laurel, which was sacred to him, and from this circumstance his favourite poets were the same crown. In the character of the sun, his head is surmounted with rays. He is often represented on the coins of the Syrian princes. The animals consecrated to him were the wolf and hawk, as symbols of his piercing eyes; the crow and raven, from their suppled faculty of predicting the future; the cock, from his announcing the dawn of morning and rising of the sun; the griffon, on account of his tuneful powers, recorded and celebrated by Anacreon (od. 43); and the swan, partly from his prediction of futurity, and partly from his extraordinary vocal powers. The various appellations which were appropriated to Apollo, were derived either from some of his chief attributes, or from the places where he was worshipped. It would be endless to enumerate them all; we shall therefore content ourselves with some of the principal, and refer for their more particular explanation to the articles under which they occur. He was called Aslan, in reference
A P O L L O.

to Actium: Actebruris; in his hymn, attributed to Homer; and "Intanum," by Propertius, Ovid, &c. on account of his long hair; Alexius, from his power of healing; Aristeus and Argyrosetus, from his bow and arrows made of silver: Ctenus, from ctenes, on account of his fine hair, under which appellation he was worshiped at Seleucia; Cepheus, on a golden pillar of Aurelian: Cepheus, from Cepheus, where he had an oracle; Centaurus, from a mountain of this name in Delos: Delphi, from Delphes; Delphi, from Delphi; Didymus: Erotes, or long计算器, in allusion to his arrows and the rays of the sun; Laton and Latona, from his mother Laton; Medicius, from his being the inventor of medicine; Nausicaa, from Anguila's having ascribed his victory at Actium to him; Nausicaa, or Nominus, either from his superintending herds and peltry, or from the fertility which the earth derives from the influence of the sun: Pan, formed of ψαυταν, because he wounded with his arrows; Panthen, from Patara in Lycaea, where he had a temple and oracles; Phobus, from Phoibe the mother of Latona, or from his splendor; Python, from his victory over the serpent Python: Smintha, from σμῆνα, a name given by the Croets, who, having neglected his worship, were punished by the devastations of these, and rescued by his interposition: Socratis, from his predicating over lots: Thaetis, from θηην, a gate, because he predicted at the gates, among the Greek; who adorned them with his statues: Thymiaterus (Virgil Æneis. iii. §.v.), from Thyma, where he had a grove and temple, &c.

Apollo Belvidere, in Sculpture, a very celebrated antique statue, esteemed by many of artists the most excellent and sublime of all the antique productions. It was found towards the end of the fifteenth century, at Capo d'Arco, upon the sea coast, about two leagues from Rome, in the ruins of ancient Antium. It was purchased by pope Julius II. when only cardinal, and placed in his palace near the church of Santi Apolloni; but soon after, being made pope, he removed it to the Belvedere of the Vatican; from whence it takes its name, and where it was for three hundred years the admiration of the world; until Rome was taken and plundered by the French, who have transported this divine statue to the museum at Paris.

The marble out of which this statue was worked, is of so peculiar a kind, as to occasion much doubt about the quarry it was taken from. The sculptors of Rome are all of opinion that the marble is Grecian; with the exception of one or two, who call it marble of Luni or Carrara. However positive these opinions may be, it is quite most probably from a quarry totally unknown at this day.

Some accounts have stated, that this statue was the work of Agathias the Epeban; but the French artists, who were sent to Rome at the time of the incursion of the French into Italy, to explore the different works of art and their history, state that the author is certainly unknown.

This statue is a standing figure, almost naked, and more than seven feet in height; it has a freedom, grace, and majesty in the whole attitude, and especially in the turn of the head, that surpasses any other antique known. The god is here represented with his quiver hanging behind his right shoulder, and his pallium over his left arm, which is extended, and has in the hand the remains of a bow, out of which he is supposed to have just discharged an arrow at the serpent Python. On this account the statue is called Apollo Pythius. The mind of the god is here so nobly exhibited, that without saying too much, he evidently appears watching the event of his aim; but with such confidence and majesty, as proceed from a certainty of success in the attempt; forming a sublime contrast to the tremulous anxiety of Diocletian, who, in another statue, is represented as having just thrown the discus. On the stump of a tree, introduced in order to strengthen the figure, is executed a serpent, the symbol of physic, of which Apollo was god. To describe this figure in few words; it is a complete composition of sublimity, elegance, activity, and youthful beauty. The right fore-arm and the left hand, which were wanting, have been restored by Giovanni Angelo da Montorfio, pupil of Michael Angelo.

In the eighth year of the French Republic, Bonaparte, accompanied by the third consul Lebrun, was present at the inauguration of this statue; and on the occasion, a bronze tablet was presented, in the name of the artists, by Citizen Vien, and placed on the pedestal of the statue, on which was engraved the following inscription:

La statue d'Apollo, qui s'élève sur ce piedestal trouvé à Actium sur la fin du XV° siècle, placée au Vatican par Jules II. au commencement du XVI°, conquise par l'armée de la République par l'armée d'Italie, sous les ordres du général Bonaparte, a été fixée ici le 21 Germinal a l'année VIII., premier an de son consulat.

On the opposite side of the pedestal is engraved:

Bonaparte, 1er Consul.

Cameracéris, 1er Consul.

Lebrun, 1er Consul.

Lucien Bonaparte, Ministre de l'intérieur.

Beside the above, there are many other statues of Apollo; some of which possess great merit. In the Villa Medicis were the following.

One smaller than life, grouped with a figure of the God Pan, who is teaching him to play the syrinx. (One, the same as this, was in possession of the Earl of Belborough at Roehampton.)

Another Apollo, leaning on the stump of a tree; his right arm rests upon his head. A very elegant and beautiful figure. The left arm and the feet are modern. This is called the Apollo de Medicis.

Another, leaning on the stump of a tree; with his leg crooked. This was originally playing on a lyre; though the lyre is now wanting. Over the tree hangs the pallium of Apollo, and at the bottom is a swan. The air of the head, and the sweep of the body of this figure, are very elegant.

Two others, of the same design; except that their heads are more elevated. These are not quite equal in merit to the first.

Another, also leaning on the stump of a tree, with his lyre; very fine.

In the palace Farnefe, was an Apollo of black marble, leaning on his lyre, with his right hand over his head.

Another in the palace Giulietti, where he holds the skin of Marlyas; very fine.

A group of Apollo and Marlyas was in the palace Chigii, in which Apollo has one hand on the shoulder of Marlyas, with a knife in the other. They regard each other, in this group, with an expression that is surpassingly well told. The air of Apollo's head is divine.

There are some small beautiful statues of Apollo at Wilton house: several at Paris, and very many in different parts of Europe, besides a great many celebrated busts and baso-relevos.

Apollo was also the name of a kind of pantomime dance, which exhibited some actions of this god:

APOLLODORUS, in Biography, a grammarian of Athens, was the son of Areopides, and a disciple of Aristarchus the grammarian, and of the two fioic philosophers Panaitius and Diogenes the Babylonian. He flourished about

3 S 2
A P O

the 15th Olympiad, or 143 years before Christ, under Pha-
kleus Philemon. None of his works are extant; the three
books of his "Bibliotheca," which contain the whole
history of the Greek divines and heroes, from Lucan,
who is believed to have founded the kingdom of the
Argivians in the time of Abraham, to the time of Thucydides,
the son of Athens. This history was written in the reign of
Antiochus I. the Great, king of Persia, who died in the 50th
year of the 14th Olympiad, or 143 years before Christ.
Sicinnus pronounces this to be a very elegant and cir-
mous performance, from which we may derive some acquaintance with ancient history,
as the fables are founded on historical truth, and as the
persons whom it records actually existed, though their actions
are exaggerated or digested. He adds, that we may extract
from Apollodorus a more certain and better founded chronology,
than from the napologies of Hesiod, and Vossius is of
opinion, that by separating the fabulous stories from real
events, we may learn from his writings a true history.
The first edition of this work was published by Spalinitus
at Rome, in 1533, 8vo.; but the best edition is that of Gar
among the five ancient Greek writers of fabulous history,
to which he has annexed notes, and a genealogical table,

A P O L L O D O R U S, a famous Athenian painter, flourished
about the year before Christ 448. He is said to have ple-
ished the resources, in which his predecessor Polygnotus
failed, and to have diversified the tone of his colours, and to have
produced a happy mixture of light and shade. Heliodorus
says, that he was so fnitable of his superiority in the exercise
of his art, that he wore a sort of regal tiara, as the prince of his
profession. Zeuxis improved upon his discovery, and Apol-
lordorus, in a poem written on the occasion, records and
eulogizes that of his rival. "I had discovered," says he, "for
the distribution of shades, secrets unknown till our days;
they have been wrested from me; the art is in the hands of
Zeuxis." Pliny, Hist. Nat. i. xxxv. c. 9. Anacharsis's
Travels, vol. i. p. 448.:

A P O L L O D O R U S, a famous archist, was born at Dam-
cius, and flourished under Trajan and Adrian. In the year
of Christ 104, he built the stone bridge over the Danube,
which was one of the most considerable works of Trajan;
and he also constructed the edifices round the Forum Traja-
nianum in Rome, among which were a triumphal arch, and
the sculptured column of Trajan, now existing. His off-
ensive reply to Adrian, who seems to have envied his tal-
ents and fame, was reiterated with a severity which must be
unequivocally condemned. Whilk Apollodorus was conver-
ning with Trajan on some plans of architecture, Adrian inter-
fered, and gave an opinion, which the artist treated with
tempt: "Go," says he, "and paint gourds." (an amuse-
ment which Adrian was fond of.) "for you are very ignorant of the
subject on which we are conversing." When Adrian be-
came emperor, the afront was remembered, and it prevent-
ed Apollodorus from being employed: nor was the opinion,
which Apollodorus gave with respect to the plans of a
sumptuous temple of Venus, which the emperor was build-
ing, at all conciliatory. Adrian, meanly jealous, and inex-
curably revengeful, banished the architect; and having
cauced him to be accused of various crimes, put him to

A P O L L O D O R U S, born at Lemnos, was physician to
Pto-
lemey Soter, to whom he is said by Pliny to have dedicat-
ed a book on the qualities and uses of wine. There were
two other physicians of that name, both mentioned by Pliny;
one of them is supposed to have invented an antedote against
the bite of a viper, described by Galen. Haller, Bibl.
Med. Pract.

A P O L L O D O R I A, in Antiquity, was sacred to Apollo at
Lygara. It is said, that Apollo, after the defeat of Py-
tion, having returned to Elegaia with his sister Diaca, was
driven thence by the inhabitants, and obliged to seek a
retreat in the island of Crete. In a little while, a plague made
great ravages in this place, and upon consulting the oracle,
information was received, that seven young women, and as
many young men, should be sent to Apollo and Diaca to
requite their return to Elegaia. As soon as these duties
were performed, the plague ceased; and in commemoration
of this event, they annually depicted the same number of young
women to the sea, as were, in search of Apollo and Diaca.

A P O L L O D O R I A, in Geography, a female Chaldean Martyr
of Alexandria, was an advanced age at the beginning of the
Decian persecution, in 248, and yet fell a victim to her
profession. Her persecutors struck her upon the cheeks, and
beat out all her teeth; then lighting a fire without the city,
they threatened to burn her alive; unless the would join
with them in pronouncing certain profane words; but the leg-
hog shut his mouth, and was beheaded, threw himself into the
fire, and was consumed to ashes. Euseb. Eccl. Hist. lib. vii.

A P O L L O D O R I A, in Ancient Geography, the name of sev-
eral ancient cities; viz. a town of Abydia, situate, according
to Steph. Byz., between Caphlon and Suse. M. d'Avrille
places it upon the river Digs, to the north-east of Ar
tium. — A town of Patalytine, between Capara and Joppa,
called Apollonias by M. d'Avrille, and placed to the north-
west of Antipatris. It was recollected by Galienus, pre-
fessor of Syria, after having suffered much in wars of this
province. — A town which some authors place in Phoibis,
but which M. d'Avrille places in Caria, near the Xander,
at some distance to the west of Attocia Macedon. — A
town of Myla, according to Steph. Byz. — A town of Alia
Minor, in Ithymia, on the north bank of a lake of the same
name, and near the Rhynthus, now Aboukhina; this was
once a city of great note, and maintained its life till the
reign of the emperor Alexius Comnenus, when it was
taken and pillaged by the Turks. Apollo is referred to
the recovery of several medals of this city. There are
many Imperial Greek medals that have been found in this
city, in honour of M. Aurelius Venus, Septimius Severus,
Caracalla, Gordian, Plautilla, and GETA. — A town of Pon-
tus, according to Pliny. — A town of the small island of
Pyphys, one of the Cyclades. A town of Thrace, now
Sizoboli, situate on the south side of a small gulf of the
Euxine sea: this town was ruined by Lucullus, when he was
power of Macedonia. — A town of Macedonia in
Calcidicis, situate upon the Chabrian to the north of Chal-
cis. Another town in Macedonia, in Mygadon, south-east
of the Thessalonica, and south-west of Amphipolis. A
town dependent on Macedonia, when it extended to the west
as far as the Adriatic sea. It was situate at a small distance
to the north of the Aon, and was an episcopal seat. — A town
of the Phocide, on mount Parnassus, and formerly called Era-
nus, and CPSiiPiaS. — A town in an island near Acarn-
nania. — A town of Sicily, near the promontory of Paedum,
where was a temple of Apollo. The medals of bronze
found in this city, had the legend "Tauromenitanit."
A town of Crete, near Gnoetis, according to Steph. Byz.
— Another town of Crete, formerly called Eleutheria. It was,
says Steph. Byz. the country of Linus, and of Diogenes
the physician. — An island in the vicinity of Lycia, Steph.
Byz. — A town of Libya. — A town of the Cyreneis, to-
dwards the north west, and near the sea. Under the lower
empire it took the name of Sozusa, and its modern name is
Marzu-Sofa. — A town of Ilyria, on the Ionian sea, near
Epidamnus,
Epidamus, and not far from the port of Oricum, according to Herodotus.

APPOLLO, Cape, in Geography, a promontory on the
Ivory coast of Africa, in N. lat. 4° 56', and in the midway
between Rio Suero da Costa, and Cape Threepoints, from
which it is distant W. by N. 15 leagues. It is remarkable
for its height, and the lofty trees with which it is covered.
The surf at the Cape is so violent that no boats can land
there; and though it has a fort, it is of little or no
importance.

APOLLONIAN Hyperbolæ and Parabolœ, in Mathematics.
See Hyperbolæ, Parabolœ, and Conic Sections.

APOLLONIATIS, in Ancient Geography, a country of
Assyria, so called from its metropolis Apollonia, lay call of
Adiabene, and is placed by Ptolemy between the rivers
Gorgus and Sula.

APOLLONIUS PERGÆUS, in Biography, an eminent
mathematician of Perga in Phrygia, flourished under the
reign of Ptolemy Physcon, about 240 years before Christ.
He studied under the disciples of Euclid at Alexandria,
and there laid the foundation of that celebrity which entitled
him to the distinguished appellation of the “Great Geo-
metrion.” Of the various mathematical works which he
is said to have composed, the only one now extant is his
Tentacle of the Conic Sections; and even this has been
transmitted to us in an imperfect state. It appears that
the author’s dedicatory epistle to Eudemon, have originally
confined of eight books, but of these seven only remain.
Heraclides, in a life of Archimedes, charges Apollonius
with having appropriated to himself the discoveries and writ-
ings of that eminent mathematician; but Eutocius repels
the charge, and vindicates him from any dishonest plagiarism.
Whilst it might naturally be imagined that he would avail
himself of the works of his predecessors, it nevertheless suf-
iciently appears, that he has made several valuable improve-
ments on Euclid and Archimedes. Eutocius informs us,
that before the time of Apollonius, it was usual for mathe-
maticians to deduce the properties of the conic sections
from three different sorts of cones; those of the parabola
from a right-angled cone; those of the ellipse from an
acute cone; and those of the hyperbola from an obtuse cone;
because they admitted only one mode of cutting the cone,
which was by a plane perpendicular to the side: but
Apollonius, by varying the position or inclination of the
cutting plane, derived all these sections from any angle cone.
This valuable improvement, now universally adopted, had
been for a considerable time ascribed by Eutocius, Pappus,
and others, to Apollonius. Guido Ubaldus, however, in
his Commentary on the 2d book of Archimedes’s “Equi-
ponderantes,” published at Pisa, in 1588, has shown,
that he was acquainted with this method of obtaining the several
sections of the cone. Archimedes is said to have appropri-
ated the name of parabola to one of these sections; and the
properties of the ellipse and hyperbola are said to have been
introduced by Apollonius, in imitation, probably, of the
former. However this be, it is universally allowed, that
the conic sections of Apollonius rank among the most
valuable remains of antiquity. The first four books
have been preferred in the original Greek; and the 5th, 6th,
and 7th, have been transmitted to us in an Arabic tran-
slation. The translation of Apollonius’s conics was begun
under the caliph Almamun in the year 830; and Thabit
Ben Corah took pains to revise and augment it with that of
the three last books, in the course of the same century.
Abaliphat made a new translation, under the caliph Abû-
Culghian, in 924; and this version fortunately fell into the
hands of Borelli, in the manner recited in the sequel of this
article. This celebrated work of Apollonius, in its imper-
fect state of four books, was first known among the western
Christians towards the middle of the 15th century, when
Regiomontanus projected an edition of it, which he was
prevented from completing by his death. In 1517, a Latin
translation was made by Memmius, a noble Venetian, and
published after his death by his son. This seems to have
been the first edition, and its being the first was the only
merit that belonged to it. A better translation of the first
four books by Commandinus, with the Commentary of
Eutocius, and the Lemmas of Pappus, was published at
Bologna, in 1566; they were also printed in 1574, by H.
Stephens, at Paris, in 1525; in folio, at Antwerp, in 1575;
and in 1610, at London, by Dr. Barrow, in 1675. The
fol of the other three books of Apollonius was much
regretted by the Europeans; and attempts were made to re-
cover them. Maurolycus, a Sicilian geometer of the 15th
century, sketched out the theory of the 6th and 7th
books, and it was published by Borelli, as a Supplement to
Apollonius, in 1654. Father Richard, the Jesuit, pro-
vided a work of the same nature, but it never appeared:
however, his prolix Commentary on the first four books was
printed at Antwerp, in 1657, in folio. Whilst Viviani was col-
gnating materials for the restoration of the lost books, Golius
returned from the east with a great number of Arabian MSS.
among which were the seven first books of Apollonius’s
Conics. This discovery was speedily announced; and in
1644, it was noticed by Mercurinus. Golius delayed the
publication of the tract of that was expected; and in 1658,
Borelli, visiting Florence, found in the library of the Medi
cis, an Arabian MS., the Italian title of which announced the
seven books of Apollonius. Ferdinand II, duke of Tuscany,
generously entrusted him with this MS. which he carried to
Rome; and with the assistance of Abraham Eccellennus,
an oriental linguist, it was translated into Latin, and pub-
lished with notes, and a preface, maintaining that these
books are not supposititious, in 1661. The 8th book was still
wanting; and Golius affirmed, that it was not contained in the
Greek copies from which the other books were translated
by the Arabs. However, the learned Mercurinus, who pub-
lished Apollonius’s Conics, in his “Synopsis of the Mathem
tics,” found an Arabian work of Abu Neden, written about
the year 1020, in which the 8th book is mentioned; and
it is asserted that all the books were extant in Arabic. A splendid edition of all the eight books has been published at Oxford, in folio, by Dr. Halley, in 1710;
together with the Lemmas of Pappus, and the Commenta-
ries of Eutocius; the first four books in Greek and Latin;
the rest in Latin only; and the last restored by the editor.
An 8vo. edition was also published at Oxford by Dr.
Halley.

This excellent work was begun by Dr. Gregory, whose
desire prevented his proceeding farther than the 44th page;
and completed by Dr. Halley, with the assistance derived
from an Arabic version in the Bodleian library, made by
Thebit Ben Corah; and another Arabic MS. in the same
library, made by Abdolechel Schiraziti, a Persian, about
602 years ago, and brought out of the East by Chirisanus
Rarius, and principally the MS. of Golius, purchased of
his heirs by Dr. Marth, archbishop of Armagh, and com-
unicated to him for the public benefit. This MS. con-
tains the first seven books of Apollonius’s Conics; was tran-
slated by Thebit Ben Corah; and after several amendments,
completed, in 1503, at Maraga, a city on the confines of
Media and Assyria.

With respect to the conic sections, we shall merely ob-
serve, that their properties are derived in the most scientific
and
and satisfactory manner from the cone; and this has been done by several moderns, and among others, with peculiar advantage, by Dr. Hamilton. Others have, in a manner more operative, deduced their properties from descriptions of the several curves on a plane; and a late very ingenious at-


tempt, which, in the construction and demonstration, is almost wholly original, has been made to deduce all the properties of the three cone sections, from the 17th proposition of Sir Isaac Newton's Universal Arithmetic, in Mr. Walker's Treatise "on the Cone Sections," the first book of which was published in London, in 1794.

The other writings of Apollonius, mentioned by Pappus, are the following: "The Section of a Ratio, or Proportional Sections?" "The Section of a Space?" "Determine Section?" "The Tangencies?" "The Incidences;" "The Plane Loci;" each of these comprehended in two books. Pappus delivers many Lemmas relating to them; and attempts have been made for reducing them by modern mathematicians. Montucla, Hist. des Math. tom. i. p. 243—255. Voss de Scient. Math. Fabric. Bibl. Graec. lib. in. c. 51, tom. ii. p. 556. Gen. Dict. Halley's Preface.

Apollonius, surnamed Dyscolus, or the leam, on account of the poverty of his condition, a celebrated grammarian of Alexandria, lived in the reign of Adrian, and Antoninus Pius. Such was his indifference, that having no money to buy paper, he was obliged to write on oyster shells. Priscian prefers Apollonius and his son Herodian to all preceding grammarians, and professes to follow Apollonius as his guide. His treatise "on Syntax," written in Greek, is highly commended by Priscian. A correct edition of this work, with a Latin translation and notes, was published in 1840 at Frankfort, by Syburbis, in 1590. Another treatise ascribed to this writer, entitled, "Degesice, or Wonderful Hillories," was published, with other pieces, by Antonius Liberalis, Phlegon and Antigonus, and the works of M. Antoninus, in 8vo. at Basili, in 1568; and a better edition in 4to. at Leyden, in 1620, by Muenius. Suidas. Fabr. Bibl. Graec. lib. v. c. 7.

Apollonius Rhodius, so called from his long residence at Rhodes, was a native of Alexandria, and flourished in the 3d century before Christ, under Ptolemy Euergetes. Callimachus was his preceptor, by whom he was feverely satirized for his ingratitude; and he succeeded Eratothenes in the care of the Alexandrian library. Of his works, the most distinguished is a poem, in four books, on the Argonautic expedition. The author, mortified by the cenures passed upon it at its first publication, removed to Rhodes, and opened a school of rhetoric; but having afterwards corrected and improved it, the Rhodians applauded it, and conferred on him the freedom of the city. This poem has been differently appreciated both by ancient and modern critics. Quintilian and Longinus give it only the praise of mediocrity, and represent it as having no claim to real genius, and as displying the rhetorician rather than the poet. By others it has been commended as exhibiting beauties of a sentimental and descriptive kind; and Virgil has borne testimony to its value, by copying several incidents from the relation of the loves of Medea and Jason, into his beautiful story of Dido and Æneas Rapi. in his "Reflections upon Poetry." (Part ii. Rel. 15.) declares, that his style has no manner of elevation or sublimity, and that the structure of the fable is very injudicious; that the catalogue of the Argonauts is defective of variety; and that the poem becomes extremely languid from the first book: besides, Apollonius has egregiously erred in making this expedition to continue but four months.

The best editions of the "Argonautics," are Apoll. Rhod.
in his sacrifices and oblations in the temple, that he might obtain the restoration of an eye that had been lost by punishment. In his enduring infidelity, Apollonius dismissed as unworthy of admission into the temple, and also instructed the people who were afflicted, that when they entered into the temples of the idols, jut, and all knowing gods, they should pray for obtaining what it is fit for them to receive; and that the wicked, however lavish they might be in the disposal of their wealth, would be rejected; because they made their offerings not to honour the deity, but to purchase exemption from deserved punishment. Upon the death of his father, he attended his funeral at Tyana, and having given the great part of his wealth to his brother, and admonished him to reform his vicious conduct, he returned to Εγυς, where he erected a temple, and established a school of philosophy. In order to qualify himself for the office of preceptor in the Pythagorean philosophy, he determined to pass through the noviciates of five years’ silence, which the Pythagorean system required; and during this period he chiefly resided in Pamphylia and Cilicia, conveying instruction and admonition by his looks and gestures. At Afpenda he is said to have quelled a tumult occasioned by famine, and to have relieved the distressed people, by writing on a tablet the following reproof to the covetous engrossers of the grain: “The earth, the common mother of all, is just; but ye, being unjust, would make her a bountiful mother to you alone: defie from your iniquitous proceedings, or ye shall no longer be suffered to live.” The terrified corn-merchants opened the granaries, the people were supplied, and the tumult was suppressed. When his term of silence was expired, he visited Antiphon, Ephesus, and other cities, and associated chiefly with the priests. At funerary ceremonies he performed certain religious rites, which he dispensed only to those who had passed through the discipline of silence, the rest of the day was spent in the instruction of his disciples, and in communicating counsel and reproof to the people. His style was neither too florid nor too refined, but truly Attic. Avoiding verbose declamation, and ironical raillery, he delivered his doctrine with conciseness, and with the authority of a legislator. Being asked why he did not pursue his inquiries, instead of dogmatically afflicting his tenets, he replied: “I fought for truth when I was young; it is now my duty to teach what I have found; a wise man ought to speak as a law-giver, and make the doctrines which he embraces, incongruent to the people.” Apollonius now resided in Athens, and having proposed his design to some of his disciples, they declined accompanying him. He therefore entered upon his expedition attended only by two servants. At Nymus, however, he engaged Damis as his associate; and to him he confided, that he was acquainted with all languages, though he had never learned them; and that he even understood the language of beasts and birds; the Assyrian youth believed him, honored him as a god, and accompanied him in his journey. At Babylon, Apollonius converted with the magi; and in an interview with the king, whom he visited in his illness, he discoursed so excellently concerning the soul, that the sick monarch acknowledged to his attendants, that this Greek had taught him not only to deprive a kingdom, but even death itself. At the expiration of the term which he had fixed in his prediction, he took his leave of Babylon; and furnished with camels and provisions for his journey over Caucasus, he pursued his route to Taxilla, the residence of Phraotis the Indian king. With Phraotis he had many philosophical conferences; and being dismissed with presents, he was recommended to Jarchas, the chief of the Indian philosophers or gynecomorphs residing between the Hyphasis and the Ganges. After a residence of four months with the Indian sages, Apollonius returned to Babylon; and from thence passed into Ionia, where he visited Ephesus and several other places, every where reproving the people for their misdeeds, and enforcing the Pythagorean doctrine and discipline. In his visit to Pergamus and the ancient fest of Troy, he paied a night by himself near the tomb of Achillies; and he afterwards informed his companions, that by the power of an incantation which he had learned in India, he raised that hero from his tomb, and held a conversation with him. In the island of Lesbos he conversed with the priests of Lesbos, and from thence proceeded to Athens. He arrived there at the time when they were performing their sacred mysteries, and presented himself for initiation, but was refused because he was an enchanter; at a future period, however, he was admitted. After passing through some other Grecian cities, where he pretended to perform miracles and to predict future events, he purposed his course through the island of Crete to Rome. Jut before his arrival, Nero had indulged an edict, that all those who practised magic should be banished from the city. His friends were alarmed on his account, and though twenty-six out of the thirty-four persons who were his flated associates, deserted him, he persevered in his purpose, and under the protection of the sacred habit obtained admission into the city, and also leave from the confidant Teleclus to visit the temples and converse with the priests. From Rome, Apollonius travelled to Spain; and after the death of Nero, he returned to Italy in his way to Greece, whence he proceeded to Egypt, where Vepodian was trying every expedient to establish his power. This prince engaged the philosopher in his favour; and he in return adapted his measures to the views of the new emperor, and used all his influence among the people in support of Vepodian’s authority. When he was in Egypt, he visited Ethiopia; and on his return he was favourably received by Titus the successor of Vepodian, to whom he wrote the following laconic epistle, on his refusing a crown of victory upon his taking Jerusalem: “Apollonius to Titus emperor of the Romans. Endeth your opinion, since you refuse to be applauded for bloodshed and victory in war, I send you the crown of moderation; you know for what kind of merit crowns are due.” Upon the accession of Domitian, he was concerned in exciting a sedition in Egypt against that tyrant, and in favour of Nerva. An order was issued for seizing him and bringing him to Rome; but as soon as he heard of the order, he repaired thither of his own accord; and was brought to trial before the prætor Elan, who acquitted him. Apollonius now passed over into Greece, and visited the temple of Jupiter at Olympia, the cave of Trophonius in Arcadia, and other celebrated seats of religion; and wherever he went the number of his followers increased. At length he settled at Ephesus, and there established a Pythagorean school, and had many disciples. Of his fate, after he settled at Ephesus, nothing certain is related. The time, the place, and the manner of his death, are unknown. It is probable that he lived to an extreme old age, and died in the reign of Nerva. After his death, Damis became his first memorist. His memoirs were communicated by a friend, to the empress Julia, the wife of Seuerus, and by her to Philolatus, with a request that he would transcribe and embellish the narrative. Philolatus undertook the task, and so loaded his account of the life of this extraordinary man with marvellous tales, that it is very difficult to ascertain the credit due to his narrative. He relates, for example, that while the mother of Apollonius was pregnant, the Egyptian divinity, Proteus, appeared
peared to her, and told her that the child she should bring forth was a god; that his birth was attended with a celestial light; that in the Athenian temple at Aigae he predicted future events; that at the tomb of Achilles, he had a conference with the ghost of that hero; and that whilst he was publicly disputing at Ephesus, he suddenly paused, as if struck with a panic, and then cried out, "Slay the tyrant!" At the very instant when Domitian was cut off at Rome, if to these tales we add the accounts which Philostratus gives of the efficacy of the mere presence of Apollonius, without the attendance of a single word, in quelling popular tumults; of the chains of Prometheus which he threw upon Mount Caucasus; of speaking trees, of pigeons, phonixes, tayys, and dragons, which he met with in his southern tour; and of other things equally wonderful; it will be impossible to hesitate in ascribing the marvellous parts at least of Philostratus's narrative to his ingenuity, or his credulity. Nevertheless, the narrative of Philostratus, with all its inconveniences, was, about a century after its appearance, referred to in preference to other accounts of Apollonius then extant, by Hierocles, who first endeavoured to form a comparison between Christ and this philosopher; and Eusebius, in refuting this attack upon Christianity, admits, in general, the accounts of Philostratus, and shews that, according to his account, Apollonius does not deserve to be compared with Christ.

Dr. Lardner indeed has fully shewn that Philostratus did not write the life of Apollonius with any reference to the life of Christ; and that his design was to exhibit this philosopher as a counterpart to Pythagoras. The narrative of Philostratus may be admitted, in concurrence with other collateral evidence, as a sufficient testimony to the existence of such a man as Apollonius, and to his having been an eminent philosopher of the Pythagorean sect, who travelled through almost every part of the civilized world, exhibiting an example of illicit and rigid morality, teaching lessons of moral wisdom, and doctrines of speculative philosophy, and attracting popular attention and reverence by pretending to supernatural powers. After all, very different opinions have been entertained concerning his character. Some have even supposéd that the whole series of extraordinary events related concerning him has been the mere invention of Philostratus and others, for the purpose of obliterating the progres of Christianity, and providing a temporary support for the falling edifice of paganism; and it must be acknowledged that several writers on the mode of regarding the Apollonius have availed themselves of his history to call a shade over the character of Christ, and to perplex and weaken the evidence afforded by his miracles, of his divine origin and mission. Some, allowing that such a person as Apollonius existed, of which there is no sufficient reason to doubt, have apprehended that he was intimately acquainted with nature, and deeply skilled in magical arts; and that he applied his knowledge and skill to the purposes of imposture, that he might thus delude a credulous multitude, and induce them to believe that he was something more than human; whilst others imagine, that he accomplished his fraudulent designs by means of a real intercourse with evil spirits. Perhaps the truth of the case is, that Apollonius was one of those impostors who professed to practise magical arts and perform other wonders for the sake of acquiring fame, influence, and profit among the vulgar. In this light he was regarded by his contemporaries: Lucian, who lived in the time of Trajan, and Apuleius, who flourished under Antoninus Pius, rank him among the most celebrated magicians.

How successfully Apollonius practised the arts of imposture, sufficiently appears from these events which followed. The dominion over the minds of men which he found means to establish during his life, remained and increased after his death, so that he long continued to be ranked among the divinities. The inhabitants of Tyana dedicated a temple to his name. The Ephesians consecrated a statue to him, in commemoration of his having delivered them from the plague. The emperor Adrian collected his writings, and preferred them in his library. Caracalla dedicated a temple to him, as to a divinity among men. Alexander Severus kept, in his domestic temple, the image of Apollonius with those of Abraham, Orpheus, and Christ. Aurelian showed the Tyraean particular favour, from respect to his memory. Ephesius cites Hierocles, as ascribing to Apollonius a divine and hidden wisdom, by which, and not by magical art, he had performed great wonders; and it is added, that in his time there were persons who pretended to perform magical incantations by invoking the name of Apollonius. Ammianus Marcellinus (I. xxi. c. 14.), ranks this philosopher among those eminent men who have been attested by the supernatural aid of a daemon or genius, as Socrates and Plato; and Eunapius, who was indeed a credulous and fantastical Platonist, speaks of him as something between a god and man, and adds, that Philostratus ought to have intituled his history, "The Defect of a God upon Earth." The common people ranked him in the number of deified men, and made use of his name in incantations; and even among the philosophers of the Eclectic sect, he was regarded as a being of a superior order, who partook of a middle nature between gods and men.

Of the writings ascribed to Apollonius, none remain except his "Apology to Domitian," and his "Epistles." The first, in its substance, is genuine, but strongly marked with the sophistical manner of Philostratus: the latter abound with philosophical ideas and sentiments, and are written in a laconic style, which affords a premonition in favour of their authenticity. From these epistles it appears, that Apollonius blended with the Pythagorean system concerning the nature and origin of things, according to which God and nature are primary, independent principles, the notion of the Heraclitean school, viz. that the primary essence of all things is one, endowed with certain properties by which it assumes various forms; and that all the varieties of nature are modifications of the universal essence which is the first cause of all things, or God. Hence Apollonius taught, that all things arise in nature according to one necessary and immutable law; and that a wise man, being acquainted with the order of nature, can predict future events. Thus Apollonius connected fuperition with impiety, and made both subservient to imposture. The epistles of Apollonius were edited by Commelin, in Svo. in 1603; and by Stephens, in 1577. Philostrat. Vit. Apoll. Brucker's Hist. Philos. by Enfield, vol. ii. p. 42—45. Gen. Dict. Lardner's works, vol. viii. p. 296—292.

APOLLOS, a native Jew of Alexandria, and a Christian convert, was celebrated in the time of the apostles for his eloquence and his knowledge of the scriptures; Acts, xvii. 24. In the year 54, he went to Ephesus; and, during the absence of the apostle Paul, preached the gospel in the synagogue, and demonstrated from the scriptures that Jesus was the Christ. Having been more fully instructed by Aquila and Priscilla, he went to Corinth, and preached with such acceptance and success, that he made many converts; and such was his popularity, that they considered him as their leader, in opposition to Peter and Paul; 1 Cor. iii. 7. But this division did not alienate the affections of Paul and Apollos from each other. St. Jerom says, Apollos was so satisfied with the division which had happened on his account
Apo

at Corinth, that he retired into Crete with Zenos, a doctor of the law; but when the disturbance was appeased by the letter of St. Paul to the Corinthians, Apollos returned to this city, and became bishop there.

APOLLYON, in Scripture History, a Greek appellation corresponding to the Hebrew ABADDON, which see; see also APOLLO.

APOLGETIC, APOLGETICAL, something said or written by way of excuse or apology for any action or person.

The Apolgetic, or Apology of Tertullian, is a work of much force and spirit. He there vindicates the Christians from all that had been objected to them; particularly from the abominable crimes said to be perpetrated at their meetings, and their want of love and fidelity to their country. The ground of this last accusation was, their refusing to take the accustomed oaths, and swear by the tutelary gods of the empire. Tertullian addresses his Apolgetic, written at Carthage about the year 203, to the magistrates of Rome, the emperor Severus being then absent, or rather to the governors of provinces, or perhaps to the proconsul of Africa; and the chief magistrates residing at Carthage. His Apolgetic addressed to Scipula, proconsul of Africa, on account of his severe treatment of the Christians, is supported by Care (Hist. Lit. t. p. 93.), to have been written in the year 197.

APOLLOGOS, in Ancient Geography, Oboleb, a town of Asia, upon the bank of the Paphitis.

APOLLOGE, APOLLOGEUS, a moral fable, or a feigned relation intended to inform and amuse the manners. Scaliger derives the name απολογε, inasmuch as the apologue means something more than what at first sight it expresses. Such are the fables of Aesop; whence, moral fables are usually denominated Aesopic Fables.

F. de Colonia makes it essential to the apologue, that it contain what passes among brutes; and distinguishes it from the parable by this, that the latter, though feigned, consists of possible circumstances, which the former does not, hence heals cannot speak. There is this farther difference between them, that the latter is a fumultum drawn from natural, moral, or any other branches of knowledge; the former only from moral topics. See PARABLE.

Apollogue, according to some, differs from fable, as the former is used in speeches and harangues, to persuade; the latter in tragedies, comedies, and other pieces of poetry, to instruct, and correct the manners. See FABLE. Apologue also differs from ανερ, as the latter is only calculated for the use of men, and carries a graver and weightier admonition; whereas apollogues are proposed to children. We find many things in authors concerning the origin of apollogues, the distinguishing characters of apollogues, the use and advantage of the way of teaching by apollogues. See Story, Dict. Crit. in voc. & Shaftel. Charact. tom. iii.

APOLLOGY, formed of απολογο, to refute, defend; a discourse or writing in vindication of a person or performance.

The principal ancient apologies in favour of the Christians are those of Quadratus, written about the year 126, and addressed to the emperor Adrian, which is said by Jerome and Eusebius to have had a good effect on the emperor; of Aristides, written at the same time with the former, and prefixed to the same emperor; of Justin Martyr, one of which was written in the year 150, and addressed to Antoninus Pius, Marcus Antoninus, Lucius Verus, and the senate and people of Rome, which is extant entire, and the other in 152, prefixed to Marcus Antoninus; the beginning of which is wanting; one of Melito, in 177, prefixed to the same emperor; one of Athenagoras, written between the years of Christ 177, and 183, and prefixed to M. Antoninus and Commodus; one of Pollio, addressed to M. Antoninus about the year 176 or 177; one of Miltiades, about the year 180, addressed to the princes of this world; three books in defence of the Christian religion, by Theophilus, written a little before his death, in the beginning of the reign of Commodus, A. D. 181, and addressed to Autolycus, a learned heathen; that of Pollio, prefixed to the Roman senate, A. D. 186 or 187; the apology of Tertullian, and the dialogue of Municius Felix, called Olivarus, written in the beginning of the third century.

We have two excellent treatises by the learned and ingenious Dr. Watson, bishop of Landaff, under the title of Apologue: one, an "Apology for Christianity," in a series of letters addressed to the well-known historian, Mr. Gibbon, and printed in 1776; and another, "An Apology for the Bible," in a series of letters addressed to Thomas Paine, author of "The Age of Reason," and printed in 1795. The name of the author will sufficiently recommend these tracts in defence of our common faith.

APOLYSIS, from απολύω, I release, in a general sense, the solution or refolution of any thing. Thus we read of the apolysis of a disease, the apolysis of a bandage, or the like.

APOLYSIS, in a more particular sense, denotes the exclusion of any thing. Thus we read of the apolysis of the fetus, the fecondaries, and the like.

APOMEILL, in Medicine, a kind of decoction prepared of honey, or a honeycomb, mixed with vinegar, and boiled a short time, till the qualities of both be united, and the acrimony of the vinegar allyed.

The apomeil is represented as a kind of medium between mufle and oxymel. It was anciently of great use among the Greeks, as a detergent, promoter of flood, urine, &c.

APOMYOS DEUS, from από, and μυς, fly, in the Heathen Mythology, a name under which Jupiter was worshipped at Elis; and Hercules, as well as Jupiter, at the Olympic games. These deities were supplicated under this name, to destroy or drive away the vast number of flies which always attended at the great sacrifices; and in those which accompanied the Olympic games, the first was always to the Apomyos or Myiagrus Deus, that he might drive the flies away from the field. The usual sacrifice was the bull.

APONEUROSIS, compounded of από, from, and υερος, a nerve, in Anatomy, signifies an expanded tendon. See the description of the Aponeurosis of the mufculus obliquus extremitatis alernini.

APONEUROTICUS MUSCULUS, a name given by Spurinca, and some others, to a mufle of the thigh, called by Cowper and Winslow, the mufculus latus tendinis, and mufculus fasciae lateralis. Winslow has called it, with more propriety, the mufculus vagnis feminis.

APONIA, from από, and νοαμ, labour, among Physicins, a state of indolence, or the absence of pain. In which sense, the word amounts to the fame with anodynia. Hence also aponia is used by fome for medicines which do not excite pain.

APONIANA, in Ancient Geography, a name given by Hirtius (De bell. Afr. c. 2.), to an illand near Sicily, opposite Lilybaeum, and suppos'd by Cluverius to be the fame with Capula.

APON, Peter de, in Biography, a celebrated philofopher and phyfician, born at a village of that name near Padua, about the year 1570, went early to Constantinople to acquire a knowledge of the Greek language, and from thence to Paris, where he was instrued in mathematics and in medicine. He appears also to have visited England
and Scotland. In 1502, he was invited to Padua, to fill the Professor's chair. He afterward went to Bologna, and to great was his reputation for his skill in medicine, that he is said to have received fifty crowns for every visit he made out of the city. On being sent for to Pope Honorius the fourth, he is said to have received four hundred ducats a day while he remained at Rome. As he pretended to a knowledge of astrology and heresy, and hence to possess the power of the ducats for which he was consulted, he was accused of being a magician, and cited before the tribunal of the inquisition. On this charge, however, he was at that time acquitted, as appears by the information placed over one of the gates of the palace at the foot of his statue erected there in the year 1420:

"Petrus Aponus Patarcianus,
Philosophus medicinae qua scientissimus.
Ob iaque Conciliatoris cognomen adeptus.
Atheologus vero adae peritus.
Ut in magisque fupcipium incertis.
Falsoque ec harxie pullultas, absuluto fuit."

But being again accused of the same crime, he died before the process was finished, aged 66 years. Not appearing, therefore, to answer the charges against him, he was condemned, and his body ordered to be taken up and committed to the flames. The officers not being able to find the body, his friends having removed and privately interred it, they burned him in effigy. Frederic, Duke of Urbino, honoured him with a statue, which he placed among those of other illustrious persons in his castle.

While at Paris, he wrote, "Conciliator differentiarum philosophorum, et praecepte medicorum," which was so much esteemed as to acquire for him the title of "Conciliiator." This book, which has passed through several editions, was first printed at Mantua, in 1472, in folio; in the first year was printed his book "De Venenis, comque remedii"] also in folio, in 1474, "La Finitione del Pietre de Apono? , at Padua in 2mo. in 1505, "Textus Medicamentarum," Lugduni, 8vo. For the titles of various other works, and their different editions, see Elsy's Diction.

A P O

A P O


APONOGETON, in Botany, Lin. Supp. 32. Schreb. gen. 83:1. Thumb. nov. gen. 72. Jaff. 19. Clas. "Aconitria etragynia." Nat. order. inundata: noadis, Jaff. Gen. char. cal. none, except a spathaceous scale surrounding the flower, simple, sessile, oval, obtuse, entire, erect, smooth, coloured; cor. none; filo. filaments eleven to nineteen, in the upper flowers fewer, inserted between the spathe and the capsule, subulate, smooth, white, many times shorter than the spathe; pist. germ ufually four; styles none; stigmas subulate, bent inwards; per. capsules four, seldom three or five, oval, subulate, acute, gibbous on the outside, flat on the inside, smooth, one-celled; seeds three in each capsule, attached to its base, sessile, obovate, very blunt, smooth, sub-compressed.

Eff. gen. char. cal. an acumen; cor. none; cox. three-seeded.

Species 2. A. mononachyon, single-spired aponogeton: spire simple; leaves cordate-ovate; root bulbous; leaves very long, petioled, radical, entire, floating, spike hexagonal; bracteae instead of a co-olla, two below each floret; flowers fixed, longer than the bracteae. Observed by Koenig to be common in the fields in the East Indies that are flooded. For 2. A. ephichymus, broad-leaved aponogeton: spire bifid; leaves linear oblong, floating, bracteae entire; flowers many-flowered. Thumb. nov. gen. 44: root bulbous; spire imbricated; flowers white, fragrant, alternate, erect, with an ovate bract; piliils three or four; filaments vary from six to twelve; flowers almost all the year. Thumb. found it in brooks at the Cape of Good Hope, whence it was introduced here by Mr. F. Aiton in 1788. 3. A. angustifolium, narrow-leaved aponogeton: spire bifid; leaves linear lanceolate; bracteae two-parted; flowers fixed, villous. The flowers of this species are in the Supp. Plant. fail to vary from six to twelve, whereby it has been confounded with the preceding plant. A native of the Cape of Good Hope, introduced by Mr. F. Aiton, in 1788. It flowers during the greater part of the year.

Propagation and culture: the plants are inhabitants of the green house or excape floor, and may be increased by offsets from the bulbs. See Miller's Dict. by Martyn.

APOPHYSIS, in Anant Geography, an hamlet near Patavium or Padua, and celebrated by Martial as the birth place of Livy, and on account of its balsam, now Abano.

APOPHITYPLICA. From apophysis, I disjunct, in the Ancien Poety, a hyrrn addressed to a stranger on his departure from a place to his own country.

The ancients had certain holy days, wherein they took leave of the gods with apophytic songs, as supposing them each returning to his own country.

APOPHYSIS. From apophysis, I declare, and I deny, in the Civil Laws, an acquittal or remission of the prince.

Among Logicians, the word is also used for a negation or denial.

APOPHISIS was also used for the account given of effluvia, at the exchange of them, for avoiding public employments. When any man would exclude himself from any troublesome and chargeable task, by calling it another richer than himself, the perfon produced had power to challenge him to make an exchange of effluvia, and thereby compel him to undergo the office he had before refused.

APOPHISIS. In Retorik, a figure whereby we really say or advise a thing, under a feigned flow of passing over or diffusing it.

Quintilian makes the apophysis a species of irony. Scleriger holds it the fame with what is otherwise called sccupation.

APORHEMATIZANTIA, (ex apophysis, pita, purgato), Masticatoria, Salivantia—Stalagmites. This term is applied to those remedies, by which a discharge of saliva is produced, or the evacuation of the saliva promoted. They are, properly speaking, evacuant, stimulating remedies, which, when they are chewed, or made to operate upon the internal parts of the mouth or throat, partly contribute to render the viscous fluid thinner, and partly produce a more copious flow of the saliva and other fluids, and their evacuation from the glanses situate within the cavity of the mouth, about the palate, pharynx, larynx, uvula, and tonsils. To these classes of remedies belong all those solid substantices, which can be moved backwards and forwards in the mouth, without injury; as in consequence of the preurface which they give to the salivary glands, and in the disposition of the discharge from those passages is increased; on this account such substantices are chosen for this purpose as poiffets at the same time a degree of acrimony. As a security against the infection of contagious diseases, it has therefore always been recommended to chew cubic, caranum, cinnamon bark, juniper berries, wax, marjoram, fange, anglicca root, and to spit out the saliva thus evited. More stimulating remedies of this kind are, tobacco-smoke, the leaves of tobacco, mustard seed, horse-radish, ginger, pepper, pimipinella, &c.

To the true stalagmites belong those powerfully revolentes, medicines, which dissolve the mucous and acid lymph to that
that degree, as to enable it to be separated and discharged
by the smallest reflexes of the glands;—to these belongs
Mercury.—However the use of dialogues cannot be rec-
commended without distinction, as they are detrimental to
debilitated constitutions, and those that are much inclined
to vomiting. They are prejudicial to ulcers, within the
cavity of the mouth, and are frequently fatal to emaciated and
pathical constitutions.

**APOPHORETA**, from αποφορεῖν, I carry away, in An-
tiquity, presents made to the gods at a feast or other enter-
ttainments, which they carry away with them.

**APOPHULADIES**, from αποφοραίον, unfortunate, derived
again from αποφορεῖν, I speak, in Phylus, denote a sort of
unhappy days, wherein neither one exist, or an ill one, is to
be expected.

**APOPHTHEGM**, from αποφθορίη, I speak, a short, sententious,
and instructive saying or maxim, delivered by a person of distingushed character.

Such is that of Cyrus: "He is unworthy to be a ma-
gistrate, who is not better than his subjects." Or this:
"He that will not take care of his own business, will be forced
to take care of that of others." Or that of Aesop: Mau-
mon, when reduced by hunger to loot of his baggage:
"How much pleasure have I hitherto lived a stranger to!"
Or that of Cato, "Homines nihil agendo diffici mulæ
agere." Or, finally, that of Anaxagoras, "fella lente." The
apopthegm of Plutarch are well known.

**APOPHYSGE**, in Architecture, that part of a column
where it begins to spring out of its base, and shoot upwards.
The word in its original Greek signifies flight; whence the
French also call it espace, congé, &c.; and we, sometimes, the
spring of the column.

The apophyses, in its original, was no more than the
ring or ferrule heretofore fallent at the extremities of wooden
pillars, to keep them from splitting; which afterwards was
imitated in stone-work.

It is properly a large concave or arched member, serving
either to connect two flat members together, or to join a flat
member to another not flat.

In this sense we may distinguish two apophyses, the up-
per and lower.

**APOPOMEI, upper**, is that part, or sweep, whereby a
large flat member of the upper part of an order is connected
to the lower.

This is also called by the French le congé d'embaut; and
by the Italians, il cavò di frora.

**APOPOMEI, lower, apophysis inferior**, is a concave mem-
er, which connects two flat parts in the lower half of an
order.

This the French call le congé d'emba; and the Italians,
le cavallo di fuofo. Sometimes also, il cavo di fuofo.

**APOPYSIS**, in Anatomy, a protuberance of a bone;
or a part eminent, and jutting out beyond the rest.
The word literally denotes a production outwards; formed from
αποφυτεῖν, to arise from. It is the fame with what
we otherwise call process, eminence, probol, projection,
protuberance, cephalis, head, and the like. Apophyses differ
from ephipheis, as these latter are only appendages adhering
to or connected to a bone; whereas the former are produc-
tions or continuations of the bone itself, growing out from
it like branches from the trunk of a tree. For an account
of the kinds of process or apophyses, which are found in the
skeloton, seeSkeleton.

**APOPHEIS, or Procillus mammillaris, a name given to
the olifatory nerves, when they lie on the cribiform lamalla
of the ethmoid bone.**

**APOPHEIS mammillaris, or mufoids, is a process in the
petrous part of the temporal bone.**

**APOPHEIS eruvia, denotes a large process of the
malleus of the ear, formed to give attachment to
muscles.**

**APOPHEIS is also applied by Hippocrates to certain
delicate excrences found in mules, and female fetuses of seven
months, as appearing rather pecuflag, and origins of
members, than distinct members, such as he says may be found
in male fetuses.**

**APOPHEIS, in Botany, excrences from the receptacle
of the musk.**

**APOPLANESIS, from ἀποπλανεῖν, I deceive, in Or-
tory, a kind of fallacious defence, and flattering over, dark-
ening, and concealing things, in order to blind the judges, or
the audience.**

**APOPLANESIS, in a more particular sense, denotes a sort
of confutation, wherein the speaker promises to answer what
the adversary objects in another place, but which being too
difficult to answer, is afterwards forgot and left to pass un-
answered.**

**APOPLETIC, relating to an apoplexy. Thus we
say, an apoplectic fit, an apoplectic water, &c.**

**APOPLETIC vein, a name sometimes given to the jugu-
laris.**

**APOPLETICA, apoplectic medicine, a name used by
some for what we more properly call antapoplecticis.**

**APOPLETICAL balms is a name given by some writers,
to a sort of sweet scented balms, prepared of distilled oils,
and used by way of perfume.**

**APOPLEXY, Apoplexia, in Medicine, a sudden priva-
tion of all the senses, and all the sensible motions of the
body, excepting the heart and lungs, attended with
an great depravation or suspension of the principal faculties
of the mind.**

The word comes from ἀποκλέω, to strike, or oftenis; this
disorder striking suddenly, and, as it were, like a flash of
lightning.

Hippocrates distinguishes two kinds of apoplecticis, the
one, strong, the other weak; only differing in the greater or
lesser difficulty of respiration and the circulation: in the
former the pulse and breath seem almost entirely stopped;
in the latter there are considerable remains of them.

The more modern authors distinguish apoplecticis from their
causes (affecting the brain, or nervous system in general), into
funicous, ferous, nervous, phusmodic, symptomatic, &c.
Diseases discover the funicous only; unless hydroceph-
us may be considered as producing cases of ferous apo-
plesy. The speedy recovery of the patient, in a considerable
number of instances, together with some other considerations,
have induced medical writers to admit the other species.
Whenever apoplexy is followed by paralysis, it appears from
diseases, that it always is of the funicous kind. For
Dr. Cullen's other species, see Hydrocephalus, Cata-
lepzia, Apophysia, &c.

The fit of apoplexy is usually preceded by a violent pain
in the head, a dimness and loss of sight or memory; some-
times by an universal indolence. It is attended with a flut-
tor and difficulty of breathing; sometimes with a fever,
with a fuming at the mouth; frequently with a sweat,
haemorrhoids, or diarrhoea.

With respect to the prostrate cause, a multitude of the
most accurate observations have made it appear, that this
disorder arises from any cause that is capable of preventing
either totally, or in part, the influx of the nervous fluid, sup-
posed to be secreted in the cerebrum, to the organs of senl

3 T 2
and voluntary motion; and the reflux of the same fluid from
the above mentioned organs to the common cavity in the
brain; whilst the precepts, and perhaps the returns of the
fluid, supplied by the cerebellum to and from the heart
and organs of respiration, is preferred in a degree sufficient
in some measure their functions.

All the remote, predisposing, or occasionally exciting
causes, as observed and delivered by authors, may for the
greater perpetuity be reduced to clausis; in the full of
which may be reckoned,

1. The natural make of the body. Thus, when the head
is naturally large, the neck short, and as it sometimes hap-
pens, confiding of six vertebrae, whereas there ought to
be seven; this structure disposes to apoplexy; as it fa-
vours the congestion of blood in the head. Thus also, if
the body is corpulent, the capillary arteries will in general
be subject to constrictions, or the circulation in them will
be more languid in proportion to that in the larger trunks;
and face and neck in particular are observed to be turgid, florid, or bloated.

2. To the second clas belong all those causes which in-
duce such a change in the blood, lymph, and nervous fluid,
as to render them incapable of circulating freely through
their respective vessels in the brain; till lately, this clas of
causes was considered as more generally applicable to
pathology than any other. At present, the existence of such
causes is more generally doubted than believed. So great, in-
deed, is the instability of Medical Theories at this time,
that many physicians of great respectability have seriouly
recommended our return to propriety Empiricism. As this,
however, is not likely to take place from, we shall mention
the causes which have been aligned by eminent Pathologists,
and leave their adoption or rejection to the judgment of
the public.

Among these are—polypous or granulous concre-
tions in the carotid or vertebral arteries, whether formed
originally about the heart, or within the cranium; there are
discovered by a palpitation of the heart, an unequal pulse,
a vertigo, and temporary loss of sight often recurring, and
which are increased by motion or heat: an inflammatory
fizmen of the blood, which may be known by an acute con-
tinual fever, an inflammatory pain in the head, eyes, &c.
—a thick, glutinous, and sluggish disposition of the whole
mass of blood: whence old people, those who are much
subject to catarrhs, whose constitutions are cold and moist,
and who are pale and lethargic, are very subject to
apoplexies. It is not difficult to preface an apoplexy from
this cause, as it is generally preceded by an universal bilfe-
nes and dulness of the feehes, unusual swoons of speech,
tremors, fetors, insulii (night mares), frequent discharges
of vile phlegm by vomit, vertigoes, shortness of breath on the
leat motion, with a compreession of the cartilages of the
nose.

3. To the third clas belongs whatever comprises the ar-
teries themselves, or the nervous brain and of the brain, so as
to prevent a free circulation of the fluids through them.
People who are plethoric and bloated are much subject to
this species of apoplexy; especially if extraordinary motion
or heat increase the velocity of the circulation. To such,
therefore, high feeding, spirituous liquors, acid medicines,
intense and long-continued thought, are pernicious. All
humors evacuated or effused within the cranium properly
belong to this clas; as also a too great velocity of the blood
in the vessels of the head, determined thither by some imped-
iment to the circulation in the inferior parts, which may arise
from an infinite number of causes. Hither also may be referred
all compressions, from whatever cause, of the veins without
the head, which convey the reflect blood from the contents
of the cranium toward the heart; as also effusions of blood,
pus, phlyct or lymph, which press externally on the durum
and pia mater.

To the fourth clas belong all those causes, which by
any means to dissolve the texture or tear down the coats
of the arteries, veins, or lymphatic, belonging to the internal
parts of the cranium; as to cause an extravasation of
their respective fluids, which then press upon and injure the
medullary origin of the nerves of the cranium.

Some sorts of poisons, which are suddenly deleterious,
may be ranked in the fifth clas; but these may either be
reduced to the second, third, or fourth, or may be more pro-
perly laid to act on the nervous fluid or the blood, than the
brain. Among these are the fumes of mineral sulphures,
of charcoal, or that gas which exhalas from vegetable juices
during fermentation.

The anatomical inspection of bodies which have died
of apoplexies, and the historical observation of such circum-
stances as occur in the treatment of these cases, furnish us
with a knowledge of their causes; and a due reflection upon
these naturally leads us to a distribution of them into the
preceding clas, which are well adapted to the investigation
of the first methods of cure. The part affected in a perfect,
vignt, or what Hippocrates calls a strong apoplexy, appears
to be the entire encephalum commune, or what has been
called the whole brain; but in a parapoplexy, those parts
only of the common encephalum which are more compressed
than the rest: whilst the cerebellum, and its dependencies,
remain in the beginning of the disorder unaffected. Boc-
hae.

As to the prevention and cure of apoplexy, no invariable
rules can be laid down; for as the predisposing and exciting
causes, together with the parts principally affected, are va-
rious, the method of relief must also vary; and must be at-
tempted before the predisposition grows inveterate, other-
wise successes will be very precarious.

In general, however, to prevent an apoplexy, wine, hard
labour, excess in eating, and sleeping after dinner, are to be
avoided: exercise is to be kept up, anxiety and chag-
in to be restrained. To cure an apoplexy, the indications
must be taken from the appearance and age of the patient;
but more particularly from the remote and proximate causes.
The peril being placed and supported as nearly in the fit-
ting posture as possible; and a free access of fresh air secure-
d; we must, during the fit, in the singular kind, em-
ploy copious evacuations of blood, sarum, and faeces.

The jugulars or temporal arteries should be opened as
soon as a proper operator can be procured. In default of
one, the vein of the arm or leg should be tried; or, cupping,
or leeches applied to the occiput and back of the neck, to
as to take away nearly a pint of blood. The head should
be shaved, and as soon as a leuaphasia has inflamed the skin,
an active blister must be applied to the whole occiput and
back of the neck. Sinapisms also should be applied to the legs.

When these steps have been taken, the patient should be
laid on his side, with the head raised; and a stimulat-
ing esynty with aloes and spiritus turpentine injected as soon
as possible: if no urine is evacuated with the return of the
clyster, the catheter should be introduced.

As soon as swallowing becomes practicable, ten or fifteen
grains of calomel should be got down, and repeated if ne-
necessary. If these means, duly employed, produce no relief
in twenty-four or thirty-six hours; the patient's recovery
will be very doubtful, if not impossible.

In the seconl kind, that is, where the patient has not
signs of fulness of blood, but on the contrary a poverty or
defect
defect of that fluid, blisters and evacuations of the bowels constitute the principal means of relief: bleeding, even with leeches, should be admitted with caution.

In the nervous or symptomatic species, the treatment will vary with the cause. When noxious gasses have been inhaled, or poison swallowed, the offending cause should be removed, and its place supplied by exhilarating air, or medicated food. Dr. Flemmng recommends treading for the cure of apoplexies. Med. Man. vol. ii. p. 223, &c.

Termination. The disease sometimes degenerates into a paralysis; and sometimes only half the body is affected, in which case it is called simply a hemiplegia. Apoplexy differs from carus, lethargy, and coma, as in those three ditempers the fluor is not to profound, nor is the sensation quite delirious.

It differs from introps, in that there is little or no sensible pulse in this last; whereas in an apoplexy, the pulse is often full, and perceptible almost till death. It differs from ejaculation, because no motion is abolished in that. as in this; and it differs from the palsy, inasmuch as the palsy is not attended with any flor, nor does it deprive the patient of sense and perception.

Apoplexy is also reckoned among the diseases of hawks; being a ditemper which fixes their heads, occasioned by too much gase and blood, or their having blood too long exposed to the best of the sun, or having taken too long flights in the heat of the day. Harpes are also staff to be subject to apoplexies, occasioned by want of exercise, or too plentiful feeding.

The ditemper swells itself by a giddiness, reeling, trembling, and sometimes falling suddenly down without sense or motion. The cure is by taking a large quantity of blood from the neck, and applying volatile spirits to the nostrils.

APOLISTAE, from απόσις and αὐτός, arms, in Ancient Laws, a fort of officers in the county, appointed to disarm all private persons, or those not entitled to have arms; for the prevention of mischief and violence.

APOPOMPÆ, in Antiquity, certain days in which sacrifices were offered to the gods called pompæi. Whose thefts deters, were, is doubtful.

APOPSICHA, from αἴσθησις, I expir, is sometimes understood of effluvia emitted from the sun, moon, and other heavenly bodies; to which their influence on funbly things was ascribed by astrologers.

APOQUEMENY Greek, in Geography, a creek of America, which falls into Delaware-bay from Middle-town, in Newchester-county in Delaware, a mile and a half beyond Reedy island.

APORIA, from ἀποτίμω, I doubt, in Rhetoric, denotes a state of doubt or wavering, wherein the orator appears undetermined whether to say any thing or not: e. g. "Eloquar, an fleam? Shall I speak out, or hold my tongue?"

The uncertainties arising from such a disorder of thought, and the hesitation produced by it, are naturally very moving. Of this kind is that of Cicero for Chaucius (c. i.): "I know not which way to turn myself. Shall I deny the scoundrel thrown upon him of bribing the judges? Can I say the people were not told of it? that it was not talked of in the court? mentioned in the Senate? Can I remove an opinion so deeply and long rooted in the minds of men? It is not in my power. You, judges, must support his innocence, and release him from this calamity." Orators sometimes begin their discourse with this figure; and as it expresses a diffidence of mind, and has an air of modesty, it tends very much to conciliate the affections of the hearers.

Livy gives us a very elegant example of this, in a speech of Scipio Africanus to his soldiers, when he called them together after a feation: "I never thought I should have been at a loss in what manner to address my army.—I am in doubt what or how to speak to you, not knowing what name to give you. Shall I call you citizens, who have re¬ volved from your country? Soldiers, who have disowned the authority of your general, and violated your military oath? Enemies? I perceive the men, the aspect, and habit of citizens; but discern the actions, words, deliges, and disputations of enemies." Livy, book xvii. c. 27. tome iv. p. 228. ed. Drakenb.

APORON, or APORIME, a problem difficult to resolve, though it be not certain that the resolution is impossible.

The word is derived from ἀπότιμω, which signifies something very difficult and impracticable; being formed from the privative α and ἀπότιμω, paphitis.

Such we conceive the quadrature of the circle; the du¬ plicate of the cube; the trisection of an angle, &c.

When a question was proposed to any of the Greek philoso¬ phers, especially of the sect of academists; if he could not give a solution, his answer was, ἀπότιμω, q. d. "I cannot conceive it; I am not able to explain it."

This word is also used by some law-writers for an inexp¬ licable speech or discourse.

APORROEAE, APORROEAE, in Philosophy, sulphur¬ ous effluvia, or exhalations, emitted from the earth and subterraneous bodies.

The word is formed from ἀπότιμω, defus, to from from.

APORROEAE, in Physics, is sometimes particularly used for morbid or contagious effusim, or exhalations from unwhole¬ some bodies. The word is also used to denote a shedding or falling of the hair. See APORROEAE.

APOSIOPESIS, from ἀποσιτεῖσθαι, I am silent, in Rheto¬ ric, otherwise called reticency, and suppression; a figure, by which a person really speaks of a thing, at the same time that he makes a show as if he would say nothing of it. See PRETERITION.

It is commonly used to denote the same with ELIPSIS. Jul. Scaliger distinguishes them. The latter, according to him, being only the suppression of a word; as "me, me: adsum qui feci?" the former, the omitting to relate some part of the action; as,

"Dixerat, atque illam media inter talia ferro Collapsam adspicient."
Apostasia, from ἀποστασία, I depart, &c. in Physic, usually signifies the same with abscense.

In which sense the word is used by Hippocrates and others, promiscuously with ἀποστασία, ἀποφασίς, ἀποφασίζω, &c.

Apostasis, in a more particular sense, denotes a departure or removal of the morbid matter, in the crisis or solution of a disease.

Apostasis is also used by Hippocrates for a fracture of a bone, wherein some part is entirely separated or broken off.

Apostasy, a deserting or abandoning of the true religion.

The word is borrowed from the Latin apostates, or ἀποστασία, to despise, or seduce, any thing. Hence apostates legis anciently hingisri to transgress the laws. Qui legis apóstatis terrae rubris suscitavit. I. L. Edw. Concell. The Latin apostates, as before, comes from ἀποστασία, from, and Ἀπόστασις, I stand.

Among the Romans, apostasy also signifies the forfaking of a religious order, whereas a man had made profession, without a lawful dispensation.

The ancient disdained three kinds of apostasy: the first, ἀναστρεπτόμενος, is committed by a priest, or religious, who abandons his profession, and returns to his lay state; the second, ἀναστρεπτόμενος Dei, by a peron of any condition, who abandons the commands of God, though he retains his faith; the third, ἀναστρεπτόμενος, by him who not only abandons his works, but also the faith.

There is this difference betwixt an apostate and a heretic; that the latter only abandons a part of the faith, whereas the former renounces the whole.

The primitive Christian church distinguished several kinds of apostasy. The first was that of those who relapsed from Christianity into Judaism: the second, that of those who blended Judaism and Christianity together; the third, that of those who so far complied with the Jews as to communicate with them in many of their unlawful practices, without making a formal profession of their religion: and the fourth, was that of those who, after having been Christians, voluntarily relapsed into Paganism. The perversion of a Christian to Judaism, Paganism, or another false religion, was punished by the emperors Constantius and Julian with confiscation of goods: to which the emperors Theodosius and Valentinian added capital punishment, in case of the apostate, preventing others to the same iniquity: a punishment, says Blackstone, too severe for any temporal laws to inflict upon any spiritual offences, and yet the zeal of our ancestors induced it into this country: for we find by history, that in his time apostates were to be burnt to death. It is also said to have been anciently punishable, in England, by burning, and being driven to bear a horn. Thus Rota, lib. i. c. 37. § 8. "Apostates & heretics, &c. &c." Aul. § 14. "Si inde convincatur, &c. &c." Where Du Cange interprets, "discrimini, ut tibi &c. &c.

This punishment has long ago become obsolete, and the offence of apostasy was for a long time the object only of the ecclesiastical courts, which corrected the offender "profane animas." Nevertheless, it was enacted by statute 9 and 10 Will. III c. 3. 32, that if any person engaged in, or making itself a profession of the Christian religion shall, by writing, publishing, teaching, or advising speaking, deny the Christian religion to be true, or the holy scriptures to be of divine authority, he shall, upon the first offence, be rendered incapable to hold any office or place of trust; and, for the second, he is rendered incapable of bringing any action, being guardian, executor, legatee, or purchaser of lands, and shall suffer three years imprisonment, without bail. To give room, however, for repentance, if, within four months after the first conviction, the delinquent will, in open court, publicly renounce his error, he is discharged for that once from all disabilities. Such, however, is the spirit of toleration which has prevailed in this country, that penal statutes in the province of religion, though they fall exit, have long lain dormant, and find few advocates in modern times.

APOSTATA capiendo, a writ which anciently lay against one, who having entered and professed some order of religion, broke out again, and wandered through the country, contrary to the rules of the order.

APOSTATE, in a general sense, signifies a defeter from the true religion.

In which sense apostate amounts to much the same as lapsed, perverted, &c.

APOSTERIGMA, from ἀποστήμιον and στίχος, I support, in the Ancient Physic, denotes a rest or support for a diseased part, without binding.

Such are pillows, cushions, and the like.

The word seems also to have been used by Hippocrates for a lopperage, or obstruction of some vascular part.

A POSTERIORI. Demonstration à posteriori. See Demonstration.

APOSTHUME, or Apostem, Apostemia, in Surgery, a preternatural tumor; called also abscess, and inflammation.

The word comes from εἰς ἀποστήμιον, abscedo, I depart from one place and fix in another, alluding to the manner wherein the tumor is usually formed of a translated humour.

Aposthume is particularly used for a diseased or heath, which occasions swellings in the head, arising from a redundancy of humour, and a preternatural heat of that part.

The aposthume discovers itself by a swelling of the eyes, a malaise ensuing from the ears, and their wings extremely thick.

APOSTIL, apostilla, in Matters of Literature, a marginal addition, or note to a book, pasillage, or the like.

APOSTLE, apostolos, one of the twelve disciples of Jesus Christ, commissioned by him to preach his gospel, and propagate it to all the parts of the earth. The word originally signifies a person delegated or sent; from ἀποστέλλειν, mitti; in which sense it occurs in Herodotus, and other profane authors. Hence, in the New Testament, the term is applied
APOSTLE.

applied to divers sorts of delegates; and to the twelve di-
ciples by way of eminence. They were limited to the num-
ber twelve, in allusion to the twelve tribes of Israel. (See
Mat. xix. 28 Luke. xxii. 30 Rev. xxi. 12, 14; and com-
pare Exod. xxiv. 4 Deut. i. 23 and John iv. 2, 3;) ac-
cordingly care was taken, on the death of Judas, to choose
another, to make up the number, Acts i. 21, 22, 26. This
seems to have been a token of respect to the Jews, pre-
vious to the offer of the Gospel to them; whereas, when
they had generally rejected it, two more, Paul and Barnabas,
were added, without any regard to the number of twelve.
Of the first election and commission of the twelve apol-
les, we have an account, Luke vi. 13 Acts. x. 1, &c. Hav-
ing chosen and constituted twelve persons, under the name
of Apostles, our blessed Lord determined that for some time
they should be continually with him, not only to attend upon
his public ministry, but to enjoy the benefit of his private con-
versation, that he might furnish them the better for the great
work in which they were to be employed; and that, at
length, after suitable preparation, he might, with greater
advantage, send them abroad to preach his Gospel, and
thus make way for his own visits to some more distant parts,
where he had not yet been. And to enable them more ef-
effectually to do it, he endowed them with the power of
working miracles, of curing diseases, and calling out di-
mon; well knowing that such endowments would command a re-
gard, notwithstanding the meanness of their origin and ap-
pearance. About the commencement of the third year of his
ministry, according to the common account of its du-
ration, he sent them out two by two, or in pairs, that they
might be agreeable companions and assistants to each other
in their work; and he commanded them to reft their
preaching and services to the people of Israel, and to avoid
going to the Gentiles or to the Samaritans; to declare the
approach of the kingdom of heaven, and the establishment
of the Gospel dispensation; to exercise the miraculous
powers with which they had been endowed gratuitously,
and to depend for their subsistence on the providence of
God, and on the donations of those to whom they ministered.
Their names were: Simon-Peter; Andrew, his broth-
er; James the greater, the son of Zebedee; and John his
brother, who was the beloved disciple; Philip of Beth-
saida; Bartholomew; Thomas, called Didymus, as he had
a twin-brother; Matthew or Levi, who had been a pub-
ic; James, the son of Alpheus, called James the less;
Lebbeus, surnamed Thaddaeus, and who was also called
Judas or Jude, the brother of James; Simon, the Cana-
aneus, so called, as some have thought, because he was a na-
tive of Cana, or Dr. Hammond thinks, from the He-
brew נֶפֶל, signifying the same with Zelotes, or the
Zealot, a name given to him on account of his having be-
fore professed a distinguishing zeal for the law; and Judas
Iscariot, or a man of Cariot (Josh. xv. 25), who after-
wounds betrayed him, and then hid violent hands on himself.
Of these four, viz. Simon, Andrew, James the greater,
and John, were fishermen; two, viz. Matthew, and James,
the son of Alpheus, were publicans; and the other six were
probably fishermen, though their occupation is not distinctly
specified.

After the resurrection of our Saviour, and not long be-
fore his ascension, the place of Judas the traitor was sup-
plied by Matthias, supphed by some to have been Na-
thaniel of Galilee, to whom our Lord had given the distin-
guishing character of an "Israelite indeed, in whom there
was no guile:" and the twelve apostles, whose number was
now completed, received a new commission, of a more ex-
tensive nature than the first, to preach the Gospel to all
nations, and to be witnesses of Christ, not only in Jeru-
lalem, in all Judea, and in Samaria, but unto the utter-
mmost parts of the earth; and they were qualified for the execution
of their office by a plenteous effusion of miraculous powers
and spiritual gifts, and partly by the gifts of tongues. In
consequence of this commission, they preached first to the
Jews, then to the Samaritans, and afterwards to the idola-
rous Gentiles. Their signal success at Jerusalem, where
they opened their commission, alarmed the Jewish Sanhedrin,
before which Peter and John were summoned, and from which
they received a strict charge never more to teach, publicly
or privately, in the name of Jesus of Nazareth. The noble
reply, and subsequent conduct of the apostles, are well
known. This court of the Jews was so awed and incensed,
as to plot the death of the twelve apostles, as the only ef-
effectual measure for preventing the further spread of Chris-
tianity. Gamaliel interposed by his prudent and moderate
conduct; and his speech had so good an effect upon the
Sanhedrin, that instead of putting the apostles to death,
they scourged them, removed their charge and threats,
and then dismissed them. The apostles, however, were not di-
couraged nor restrained; they counted it an honour to suffer
such indignities, in token of their affection to their master,
and zeal in his cause; and they persisted in preaching daily
in the courts of the temple, and in other places, that Jesus
of Nazareth was the promised and long-looked for Messiah.
Their doctrine spread, and the number of converts in Jeru-
salem still increased. During the violent persecution that
raged at Jerusalem, soon after the martyrdom of St. Stephen,
several of the leading men among the Churitians were dis-
missed; some of them travelled through the regions of
Judea and Samaria, and others to Damascus, Phœnicians,
the island of Cyprus, and various parts of Syria; but the
twelve apostles remained, with undaunted firmness, at Jeru-
salem, avowing their attachment to the perfected interest
of Christ, and confuting how they might best provide for
the unforeseen emergencies of the church, and its infant and
oppressed rate.

When the apostles, during their abode at Jerusalem,
heard that many of the Samaritans had embraced the Gos-
pel, Peter and John were deputed to confer upon them the
gift of the Holy Spirit; for to the apostles belonged the
jurisdiction of conferring upon others spiritual gifts and
miraculous powers. In their return to Jerusalem, from the
city of Samaria, they preached the Gospel in many Sam-
aran villages. The manner of its being sent to Ethiopia,
by the conversion of the enunuch who was chief treasurer
to Candace, queen of the country, is related in Acts. viii. 26.
&c. After the Christian religion had been planted in Jeru-
salem, Judea, and Samaria, and sent into Ethiopia, one of
the uttermost parts of the earth (Acts. i. 8;) and after it
had been preached about eight years to the Jews only; God,
in his wise and provident providence, disposed things for
the preaching of it among the Gentiles. With this
view, about the year 41, the next transition was to the de-
vot Gentiles within the borders of Palæstine. As they had
called off idolatry on the one hand, and on the other hand
had not submitted to the ceremonial part of the Jewish law,
they were better disposed and prepared for receiving the
Gospel. Caesarea was the scene in which the apostle Peter
was to open his commission for this purpose; and Cornelius,
one of the devout Gentiles, and a man distinguished by his
piety and charity, was a proper person to be selected as
the first proselyte to Christianity. After Peter had laid
the foundation of a Christian church among the devout Gentiles,
other Christians imitated his example, and a great number of persons of this description embraced the Christian faith, more especially at Antioch, where the Jews, whom their enemies had hitherto called Gileanians, Nazarenes, and by other names of reproach, and who, among themselves, had been called disciples, believers, the church, the saints, and brethren, were denominated, possibly not without a divine admonition, Christians.

When Christianity had been preached, for about eight years, among the Jews only, and for about three years more among the Jews and devout Gentiles, the next graduation of its progress was to the idolatrous Gentiles, in the year of Christ 44, and the 4th year of the emperor Claudius. Barnabas and Saul were elected for this purpose, and constituted in an extraordinary manner apostles of the Gentiles, or uncircumcised. Barnabas was probably an elder of the first rank; he had seen Christ in the flesh, had been an eyewitness of his being alive again after his crucifixion, and had received the Holy Spirit on the day of Pentecost, as being one of the 120. Saul also, since his conversion, had preached as a superior prophet, about seven years to the Jews only, and about two years more to the Jews and devout Gentiles. They had both been in Gentile countries: and therefore may he supposed to have had more respect and affection for the Gentiles, than most of the Jews who were natives of Judea. Saul had been converted, and had hitherto preached chiefly on Gentile ground; and he had joined with Barnabas in teaching devout Gentiles for a whole year, at Antioch in Syria; by all which previous steps they were regularly conducted to the last gradation, or the conversion of the idolatrous Gentiles. But it was necessary, in order to the being an apostle, to have seen our Lord Jesus Christ alive after his crucifixion, for the apostles were in a peculiar manner the witnesses of his resurrection. Some have supposed that Saul saw the person of Jesus, when he was converted, near the city of Damascus; but others, who conceive, from attention to the history of this event, that this could not have been the case, as he was instantly struck blind, are of opinion that the seerom, when his apostolic qualification and commission were completed, was that mentioned by himself (Acts, xxii. 17.), when he returned to Jerusalem the second time after his conversion; when he saw the Lord Jesus Christ in person, and received the command to go quickly out of Jerusalem, and was informed that he should be sent unto the Gentiles. See also, Acts, xxvi. 16—20., where he gives an account of the object of his commission. He also received a variety of gifts and powers, which, superadded to his own genius and learning, as well as fortitude and patience, eminently qualified him for the office of an apostle, and for that particular exercise of it which was assigned to him. St. Paul is frequently called the Apostle, by way of eminence; and the Apostle of the Gentiles, because his ministry was chiefly employed for the conversion of the Gentiles, as that of St. Peter was for Jews, who is therefore styled the Apostle of the Circumcision.

The apostles having continued at Jerusalem twelve years after the ascension of Christ, as tradition reports according to his command, determined to disperse themselves in different parts of the world. But what were the particular provinces assigned to each does not certainly appear from any authentic history. Socrates (Hist. Eccl. lib. i. c. 19.) says, that Thomas took Parthia for his lot; Matthew, Ethiopia; and Bartholomew, India. Eusebius (Hist. Eccl. lib. iii. ad init.) gives the following account: "Thomas, as we learn by tradition, had Parthia for his lot; Andrew, Scythia; John, Asia; who having lived there a long time, died at Ephesus. Peter, as it seems, preached to the dispersed Jews in Pontus and Galatia. Bithynia, Cappadocia, and Asia; at length, coming to Rome, he was executed with his head downwaid, as he had desired. What need I to speak of Paul, who fully preached the Gospel of Christ, from Jerusalem to Illyricum, and at last died a martyr at Rome, in the time of Nero?" From this passage we may conclude, that at the beginning of the 4th century there were not any certain and well attested accounts of the places out of Judæa, in which any of the apostles of Christ preached; for if there had, Eusebius must have been acquainted with them.

The stories that are told concerning their arrival and exploits among the Greeks, the Egyptians, the Samaritans, the Greeks, and Romans, are too advanced in their nature, and of too recent a date, to be received by an impartial inquirer after truth. These fables were for the most part forged after the time of Claudine, as we have said. It is beyond all question that no epistles or other doctrinal writings of any person who was of a rank below that of an apostle, were received by Christians as a part of their rule of faith. With respect to the writings of Mark and Luke, they are reckoned historical, not doctrinal or dogmatical; and Augustines says, that Mark and Luke wrote at a time when their writings might be approved not only by the church, but by apostles still living. The credit of men, not apostles, though they were companions of apostles, was admitted no farther than as historians, or reporters of what they had seen, or of what they had heard from apostles, or eye-witnesses, and ministers of the word.

The several apostles are usually represented with their respective badges and attributes: St. Peter with the keys; St. Paul with a sword; St. Andrew, with a cross or faldor; St. James minor, with a fuller's pole; St. John, with a cup, and a winged serpent flying from it; St. Bartholomew, with a knife; St. Philip, with a long staff, whose upper end is formed into a crook; St. Thomas, with a lance; St. Matthew, with a hatchet; St. Matthias, with a battle-axe; St. James major, with a pilgrim's staff, and a gourd bottle; St. Simon, with a corn; and St. Jude, with a club.

This appellation of Apostles was also given to the ordinary travelling ministers of the church. Thus St. Paul, in the epistle to the Romans, xvi. 7. says, "Salute Andronicus and Junia, my kindred and fellow-prisoners, who are of note among the apostles." In this inferior sense the appellation is applied by Clement of Alexandria, to Barnabas; and it is alleged that he was not an apostle in the highest sense of the word, fo as the twelve and Paul were apostles. Tertullian calls all the seven disciples, apostles; and Clement calls Barnabas apostolical only in another place, and says, that he was one of the seventy, and fellow-labourer of Paul. Thefe, says Dr. Lardner, are the highest characters which he really intends to give to Barnabas, and what he means when he styles him apostle; therefore he need not be apposed
APOSTOLIC was a title given to those sent by the churches to carry their arms to the poor of other churches. This usage is similar to the synagogues, who called those whom they sent on this mission, by the same name; and the function of office itself is known as apostolic. Thus St. Paul, writing to the Philippians, tells them, that Epaphroditus, their apostle, had ministered to his wants, ch. ii. 25. It is applied in like manner to those persons who first planted the Christian faith in any place.

Thus Dionysius of Corinth is called the apostle of France; Xaver, the apostle of the Indies, &c. In the East Indies the Jesuit missionaries are also called apostles.

In some ages of the church, the pope was peculiarly denominated the apostle.

Apostle, is also used among the Jews, for a kind of officers recently sent into the federal parts and provinces in their jurisdiction, by way of visitor, or commissary; to see that the laws were duly observed, and to receive the monies collected for the reparation of the temple, and the tribute payable to the Romans.

The Theodotian code, lib. xiv. De Judeis, calls those apostoli, qui ad exiendum eorum augebat inopia, aisiarchia eis tempore diriguntur. Julian the Apostate remitted the Jews the aposto, σειράς; that is, as he himself explains it, the tribute they had been accustomed to fend him.

These apostles were a degree below the officers of the synagogues called patriarchi, and received their commissions from them. Some authors observe, that St. Paul had borne this office; and that it is this he alludes to in the beginning of the Epistle to the Galatians: as if he had said, Paul, no longer an apostle of the synagogue, nor sent thereby to maintain the law of Moses, but now an apostle and envoy of Jesus Christ, &c. St. Jerom, though he does not believe that St. Paul had been an apostle of this kind, yet imagines that he alludes to it in the passage just cited.

Apostle, in the Greek Liturgy, is particularly used for a book containing the Epistles of St. Paul, printed in the order wherein they are to be read in churches, through the course of the year. Another book of the like kind containing the Gospels, is called Συναγωγας, Gospel.

The apostle, of late days, has also contained the other canonical Epistles, the Acts of the Apostles, and the Revelations. Hence it is also called Acts of the Apostles, Πραξεων των Αποστολων, that being the first book in it.

Apostle is also thought by many to have been the original name for bishops, before the denomination bishop was appropriated to their order. Thus Theodoret says expressly, the same persons were anciently called promiscuously both bishops and presbyters, whilst those who are now called bishops were called apostles.

In the arsenal of Bremen, there are twelve pieces of cannon, called the Twelve Apostles, or a supposition that the whole world must be convinced, and acquiesce in the preaching of such apostles.

Apostles' Creed. See Creed.

Apostles, in Ecclesiastical History. See Apostolic.

APOSTOLIC, or APOSTOLICUM, in Geography, a cape on the east coast of Siberia, at the west end of the Amuriokul gulf in the North Pacific Ocean. N. lat. 63°. E. long. 179° 14'.

APOSTOLICUM, or APOSTOLIC, in Ecclesiastical Writers, denotes a church dedicated to, and called by the name of an apostle.

Vol. II.

Apostolic events, see History.

Apostolic letters, see Letters.

Apostolic traditions, see Tradition.

Apostolic Fathers is an appellation usually given to the writers of the first century, who employed the pen in the cause of Christianity, and who had conversed with the apostles, or their disciples. To this class are referred, Cle-

Sozomen speaks of the apostolium of St. Peter at Rome, and the apostolium of St. Peter and St. Paul a Quercus near Chalcedon.

In this sense apostolium falls distinguished from prophete, martyrion, &c.

APOSTOLIC, Apostolicare, apostolizing, in some Middle Age Writers, denotes the being preferred to the dignity of pope.

APOSTOLATE, in a general sense, is used for mission. In this sense, Olearius has a discourse concerning the apostolate of Christ. L. p. 1681, 4to.

Apostolate more properly denotes the dignity or office of an apostle of Christ; but it is also used in ancient writers for the office of a bishop.

In this sense, we meet with several letters, petitions, requests, &c. directed to bishops under the title of your apostolate, or apostolatus ejusque.

Thus the title apostolus had been appropriated to the pope, to that of apostolatum became at length restrained to the sole dignity of the popedom.

Every bishop's see was anciently dignified with the title of fides apostolica, an apostolic see, which is now the peculiar denomination of the see of Rome.

APOSTOLIC, in Latin, denotes those letters missive which are demanded in cases of appeal.

APOSTOLIC, Apostolical is anything which relates to the apostles, or descends from them.

Thus we see, the apostolical age, apostolical doctrine, apostolical character, confessions, traditions, &c.

APOSTOLIC, in the Primitive Church, was an appellation given to all such churches as were founded by the apostles; and even to the bishops of those churches, as being the reputed successors of the apostles. These were confined to four, viz. Rome, Alexandria, Antioch, and Jerusalem.

In after-times, other churches assumed the same quality, on account, principally, of the conformity of their doctrine with that of the churches which were apostolical by foundation, and because all bishops held themselves successors of the apostles, or acted in their dioceses with the authority of apostles.

The first time the term apostolical is attributed to bishops, as such, is in the letter of Clovis to the council of Orleans, held in 511; though that king does not there expressly denominate them apostolical, but apostolica sedes dignissimo, highly worthy of the apostolical see. In 521, Guntram calls the bishops, met at the council of Mason, apostolical pontiffs, apostolici pontifices.

In progress of time, the bishop of Rome growing in power above the rest; and the three patriarchates of Alexandria, Antioch, and Jerusalem, falling into the hands of the Saracens, the title apostolical was restrained to the pope, and his church alone. Though some of the popes, and St. Gregory the great, not contented to hold the title by this tenure, began at length to insist that it belonged to them by another and peculiar right, as being the successors of St. Peter. The council of Rheims, in 1049, declared that the pope was the sole apostolical primate of the universal church.

And hence a great number of apostolical; apostolical see, apostolical munici, apostolical note, apostolical brief, apostolical chamber, apostolical vicar, &c.

Apostolic clerks, see Jesuatis.

Apostolical canons, and constitutions; see Canons, and Constitutions.

Apostolical traditions, see Tradition.

Apostolical Fathers is an appellation usually given to the writers of the first century, who employed the pen in the cause of Christianity, and who had conversed with the apostles, or their disciples. To this class are referred, Cle-
APOSTOLICI, APOSTOLI, or APOSTLES, in Ecclesiastical History, was a name assigned by three different sects, on account of their pretending to imitate the manner and practice of the apostles. The first APOSTOLI, otherwise called Apostolical, is the term given to the Oriental, or Coptic, Church, in the third century. They made profession of abstaining from marriage, and the use of wine, fish, money, &c. See Apostolici.

Gerhard Sagarelli was the founder of the second sect; he obliged his followers to go about from place to place as the apostles did, to wander about clothed in white, with long beards, dishevelled hair, and bare heads, accompanied with women, whom they called their spiritual sisters. They likewise renounced all kinds of property and possessions, inveighed against the growing corruption of the church of Rome, predicted its overthrow, and the establishment of a purer church on its ruins. With this practice, they made little or no alteration in the doctrinal part of the public religion; but they principally aimed to introduce among Christians, the simplicity of the primitive times, and more especially the manner of life that was observed by the apostles. Sagarelli was burnt alive at Parma in the year 1300, and was afterwards succeeded by Dulcinus, a native of Novara, who added to the character of an apostle the office of a prophet and general, and carried on a bloody and dreadful war for the space of more than two years against Raynerius, bishop of Vercelli; he was at length defeated, and put to death in a barbarous manner, in the year 1307, together with Margaret, whom he had chosen for his spiritual sister, according to the custom of the sect. Nevertheless this sect flurished in France, Germany, and in other countries, till the beginning of the fifteenth century, when it was totally extinguished under the pontificate of Boniface IX.

The other branch of APOSTOLI were of the twelfth century. These also condemned marriage, preferring celibacy, and calling themselves the chaste brethren and sisters; though each was allowed a spiritual sister, with whom he lived in domestic relations; and on this account they have been charged with concubinage; they held it unlawful to take an oath; they set aside the use of baptism; and in many things imitated the Manichees. Bernard wrote against this sect of Apostolici.

APOSTOLICUM is a peculiar name given to a kind of long or hymn, anciently used in churches.

The Apoliticalum is mentioned by Greg. Thaumaturgus as used in his time. Vossius understands it as spoken of the apostles' creed. Suicer thinks this impossible, because this creed was then unknown in the churches of the East.
APOTELESMA, the science of apotefis, or the art of foretelling future events, from the aspects and configuration of the heavenly bodies.

In this sense the word amounts to the same with what we otherwise call judicial astrology.

APOTHECARY, a person who professes the practice of pharmacy, or that part of physic, which consists in the preparation and composition of medicines:

The word is derived from απόθεος, apotheos, the place where he makes up and expotes his medicines to sale. The apothecaries in England are obliged to make up their medicines according to the formulas prescribed in the College Dispensatory.

Their shops are subject to the visitation of the censors of the College, who are empowered to destroy such medicines as they think not good.

The company of apothecaries was incorporated by charter from James I. procured at the solicitation of Dr. May-erne and Dr. Atkinis; till that time they only made a part of the grocers' company; plums, sugar, spice, Venice-trace, mithridate, &c. were sold in the same shop, and by the same perfon. The reason of separating them was, that medicines might be better prepared, and in opposition to divers persons who imposed unwholesome remedies on the people. Obscr. on Cafe of Will. Role, feét. 2.

In the year 1712, the 10th of queen Anne, an act passed for reviving and continuing several acts therein mentioned, one whereof was for exempting the apothecaries from serving the offices of constable and scavengers, and other parish and ward offices, and from serving upon juries; which act was made perpetual in the ninth year of George I.

They have a hall in Black-Friars, where there are two fine laboratories, out of which all the surgeons' chests are supplied with medicines for the royal British navy.

To his majesty belong two apothecaries; the salary to the first, 320 l. to the second, 275. To the houehold belong also two. The charitable dispensation of medicines by the Chirne is well deferving notice. They have a flone, which is ten cubits high, erected in the public squares of their cities; and on this flone are engraven the names of all forts of medicines, with the price of each; and when the poor fland in need of any relief from physic, they go to the treafury, where they receive the price each medicine is rated at.

APOTHECARY, apothecaries, in Writers of the Middle Ages, denotes a shop-keeper, or warehouse-keeper.

Apothecarius is also used to denote a florce-keeper, or officer appointed to have the direction of a magazine, granary, &c.

In which sense apothecarius is sometimes rendered by berce-arii and rationarii.

APOTHEOSIS, derived from απόθεωσις, apotheosis, God, in Antiquity, a heathen ceremony, whereby their emperors and great men were placed among the gods.

After the apotheosis, which they also called delification and consecration, temples, altars, and images were erected to the new deity; sacrifices, &c. were offered, and colleges of priests instituted. Dico. 47. 56. 59. Suct. Aug. 5. Tib. 46. Patrec. 1. Ovid. Pount. 4.

Images were erected to them, with the attributes of divinity (Lucan 7. Dio. 53. Capitolin. Antonin.).

The Perians, according to Herodotus (I. i. c. 131. 1. viii. c. 143.), never conceived that their gods were deified men; and Jablonski, in the prolegomena to his

Panthon
"Pantheon Egytorum," maintains that it was a fundamental principle in the mythology of the Egyptians, not to defile any mortal. The Greeks, it is said, were the first who admitted this practice; and the heroes of the first ages were of this description. Under the Caesars, the Romans imitated the Greeks; at first they contented themselves with defacing Romulus, their founder; but having lost their liberty under Julius Cæsar, they allowed Augustus, his successor, to acknowledge him as a god, to build temples in his honour, and to offer sacrifices to him. Augustus, at the age of twenty-eight years, was declared the tutelary god of all the cities of the empire. The example was followed by succeeding emperors; so that they elevated to the rank of gods, not only the most stupid, such as Claudius, but the most wicked and abandoned; and the appellation "Divus" was assumed among their ordinary titles.

It was one of the doctrines of Pythagoras, which he had borrowed from the Chaldees, that virtuous persons, after their death, were raised into the order of gods. And hence the ancients defined all the inventors of things useful to mankind; and those who had done any important service to the commonwealth. Tiberius proposed to the Roman senate the apotheosis of Jesus Christ, as is related by Eusebius. Tertullian, and Chrysostom. Juvenal, railing at the frequent apotheoses, introduces poor Atlas complaining that he was ready to sink under the burden of so many new gods as were every day added to the heavens. Seneca ridicules the apotheosis of Claudius with admirable humour. Herodian, lib. iv, in speaking of the apotheosis of Servius, gives us a very curious description of the ceremonies used in the apotheosis of the Roman emperors. After the body of the deceased emperor (said he) had been burnt, with the usual solemnities, they placed an image of wax, perfectly like him, but of a sickly aspect, on a large bed of ivory, covered with cloth of gold, in the vestibule of the palace. The greatest part of the day, the Senate met ranged on the left side of the bed, drest in robes of mourning; the ladies of the first rank sitting on the right side, in plain white robes, without any ornaments. This lasted for seven days succeedingly, during which the physicians came from time to time to visit the sick, always making their report that he grew worse, till at length they published that he was dead.

This done, the young senators and Roman knights took the bed of state upon their shoulders, carrying it through the Via Sacra, the Old Forum, where the magistrates were used to dwell themselves of their offices. There they set it down between two kinds of amphitheatres, in the one whereof were the young men, and in the other the maidens, of the first families of Rome, singing hymns set to solemn airs, in praise of the deceased. The hymns ended, the bed was carried out of the city into the Campus Martius, in the middle of which place was erected a kind of square pavilion, the inside whereof was full of combustible matters, and the outside hung with cloth of gold, and adorned with figures of ivory, and various paintings.

Over this edifice were several others, like the first in form and decoration, but less; always diminishing and growing slenderer towards the top. On the second of these was placed the bed of state; and a great quantity of aromatic perfumes, and odoriferous fruits and herbs were thrown all round; after which the knights made a procession or cavalcade in solemn measure around the pile; several chariots also run round it, those who conducted them being clad in purple robes, and bearing the images of the greatest Roman emperors and generals.

This ceremony ended, the new emperor came to the cataphalx, or pile, with a torch in his hand; and, at the same time, fire was set to it on all sides; the splices and other combustibles kindling at once.

While this was doing, they let fly from the top of the building an eagle, which, mounting into the air with a freebrand, carried the soul of the dead emperor along with it into heaven. Augustus believed; and thenceforward he was ranked among the gods. It is for this reason, that the medals, wherein apotheoses are represented, have usually an altar with fire upon it, or else an eagle taking its flight into the air, and sometimes two eagles.

There are several curious and celebrated monuments of antiquity under the denomination of apotheoses: the first and principal is the apotheosis of Homer, said to have been the work of Archelaus of Priena, a famous ancient sculptor, and discovered, in 1668, in the Apian way near Albano, in a place formerly called Ad Bevillias, but now Pratale, belonging to the prince of Colonna, where the emperor Claudius had a house of pleasure. This is now one of the principal ornaments of the palace of those princes at Rome. To decipher the figures upon this monument, has been the labour of several celebrated antiquarians, such as Kircher, Cuper, Spanheim, Heinsius, Gronovius, Wetstein, Schott, and Winkelman. The apotheosis of Homer has also been represented on a silver vase, in the form of a mortar, and found at Herculaneum. The apotheosis of Romulus was published at Florence, in 1719, and by Montfaucon, in the third volume of the Supplement to his Antiquities. This work was executed at the time when the arts declined, and was intended to be presented in the Quirinal fields, or in some other games celebrated by horse races in honour of Quirinus, and called Quirini Circenses. The apotheosis of Julius Cæsar is exhibited on a gem in the museum of Brandenburg. Cæsar is mounted on a cedal globe, and holding in his hand an helm and a large crown of laurel. The apotheosis of Augustus is represented on a beautiful agate, which the emperor Baldwin II., when in 1244, he fought success of the Christian princes, and particularly of St. Louis, is said to have sold to the pious monarch, who deposited it in the museum of the holy chapel at Paris. See Agate. The apotheosis of Germanicus is the subject of a precious gem; that of Claudius is a basse-relieu; that of Titus is exhibited in the arch of Titus at Rome; and that of the younger Faustian, represented in basse-relieu in the Capitol, is mentioned by Montfaucon in the fifth volume of his Supplement.

Apothepalia, from ἀπόθεωσις, to set above, in Physis, properly denotes a complete or finished cure.

Apothepalia is also used, in the Gymnastic Art, for the last part of all regular exercise, viz. friction or union with oil, before as well as after bathing.

The design of this was partly to cleanse the skin from any fifth or dui it might have contracted during the exercise, and partly to remove weariness.

Apotheparium, from ἀπόθεωσις and ἱερός, holy, in Ancient Writers, a sharp kind of sauce, like that prepared of mustard, oil, and vinegar, or of vinegar alone.

Apothome, in Mathematics, the difference of two incomparable quantities: such is the difference between √2 and 1; and luch is the excess of the diagonal of a square above its side.

The word is derived from ἀπόθεωσις, to set off.

Euclid (lib. x.) makes six forts of apotomes.

Apothome prima, is when the greater number is a rational number, and the difference of the squares of both numbers is a square number, e.g. 3 = √5.

Apothome secunda, is where the lesser number is a rational number, and the square root of the difference of the squares of both numbers has a ratio expressible in numbers to the greater
greater number; such is \( \sqrt{18 - 4} \), since the difference of the squares 18 and 16 is 2, and \( \sqrt{2} \) is to \( \sqrt{18} \) as 1 to 3, because \( \sqrt{18} = 3 \sqrt{2} \).

**Apotome tertia** is when both the numbers which are subtracted from each other are irrational numbers, and the square root of the difference of their squares has a ratio to numbers to the greater. This holds in \( \sqrt{24 - 18} \), for the difference of their squares 24 and 18 is 6, and \( \sqrt{6} \) is to \( \sqrt{24} \) as 1 to 2, for \( \sqrt{24} = 2 \sqrt{6} \).

**Apotome quartia** is when the greater number is a rational number, and the square root of the difference of the squares of both numbers has no ratio to it in numbers: such is \( \sqrt{4} - \sqrt{2} \), for the difference of the squares 6 and 4 is 2, and \( \sqrt{2} \) has to \( \sqrt{6} \) no ratio in numbers.

**Apotome quintia** is when the lesser number is a rational number, and the square root of the difference of the squares of both numbers has no ratio to numbers to the greater number: such is \( \sqrt{6} - \sqrt{2} \), for the difference of the squares 6 and 4 is 2, and \( \sqrt{2} \) has to \( \sqrt{6} \) no ratio in numbers.

**Apotome sexta** is when both numbers are irrational, and the square root of the difference of their squares has no ratio in numbers to the greater: such is the case in \( \sqrt{6} - \sqrt{2} \), for the difference of the squares 6 and 4 is 2, and the root thereof has to \( \sqrt{6} \) no ratio in numbers. Peter Ramus cenures Euclid’s doctrine of *apotomes*, and even all the rest delivered in the tenth book concerning irrational lines.

**Apotome, in Muffe, is the difference of the tone major and limma, expressed by \( \frac{1}{2} \).**

The Greeks thought that the greater tone could not be divided into two equal parts; for, reason they called the first part \( \alpha \), and the other \( \lambda \): in this imitating Pythagoras and Plato.

The *apotome* is by some authors, as Boethius, called *bimiotomion major*: and the *limma*, *bimiotomion minor*. He also calls the difference of these two *comma*. The interval of two sounds expressed by \( \frac{1}{2} \), was called by the ancients *apotome major*; and that expressed by \( \frac{1}{2} \), *apotome minor*.

**Apotopote Bay, or Round bay, in Geography, lies on the S. W. coast of Otaheite, in the Pacific Ocean.**

**Apotropæa, from ἀπωτρόπαια, I avert, in the Ancient Poetry, verfs composed for averting the wrath of divinities: and the deities invoked for averting any threatened misfortune were called *apotropæans*: they were also called *Alessi, from ἀλλαξει, I drive away; and *Aventurni, from avventuro, which denotes the fame.***

**Apozemy, derived from ἀπωτρόπαια, fervefcio, I make hot, in Medicine, a form of remedy, otherwise called a decoction; which see.**

**APP, in Ancient Geography, a town of Arabia Felix, according to Ptolomy.**

**APPACK, or APPACH, in Geography, a town of Africa, in the country of Ardah, on the slave coast.**

**APPANCE, or APPENACE. See APPANCE.**

**APPARATOR. See APPARATOR.**

**APPARATUS, from apparo, I appear, properly signifies a formal preparation for some public and solemn action. We say, the apparatus of a feast, coronation, &c. The prince made his entry with great apparatus and magnificence.**

**Apparatus is also ufed for the utensils and appendages belonging to some more considerable machine; as the furniture or apparatus of an air-pump, microscope, &c.**

The term *apparatus* is used in Chemistry, either generally, to express the whole of the instruments and vessels in which or by whose means any processes is performed, or in a more limited sense, it is applied to those complicated instruments, for the most part of modern invention, in which a number of separate parts are combined into one whole. Thus a retort, according to the former application of the term, is an article of chemical apparatus; a receiver is another article; and these two when combined form the retort and receiver, one of the simplest species of *distillary apparatus*, according to the latter method of applying the term. Thus also the complicated arrangement of vessels invented by Woulfe, is called Woulfe’s apparatus, that executed by Nooth is called Nooth’s apparatus. It might seem at first sight that this was the proper place to introduce all that we shall have to say concerning chemical apparatus, but by doing the article would be extended to an unseemly length; we have therefore adopted the method of defining every general article under its proper name; of which the articles *Alembic and Alumel,* already printed, are examples; and the apparatus for particular experiments is described where the experiments themselves are mentioned; thus under the article *Alcohol* will be found a description of the apparatus invented by Lavoisier for the combustion of that fluid. Certain kinds of apparatus have also a necessary connection with each other, either in similarity of form, or of the uses to which they are applied; there will be found therefore in the course of the work certain general articles, such as *Distillary apparatus*, *Pneumatic apparatus*, &c. where these topics will be discussed.

**Apparatus, in Surgery, consists of such outward applications as are usually termed Dressings, together with such instrumental means as are requisite for the performance of any surgical operation; e.g. bandages, lint, pledgets, tents, compresses, ointments, and various machines. Previous to the performance of any chirurgical operation, a surgeon should always consider what sort of apparatus will be necessary; and he should never, for the sake of parade or ostentation, bring together any instruments which may as well be dispensed with: Modern surgery has very widely laid aside a number of uncouth, clumsy, and terrible instruments employed by our ancestors, especially the tools named cauterizing-irons (see *Cautery*), and the immense levers, &c. for reducing dislocations or fractures. Whatever is indispensably necessary in operations, should be prepared before the time fixed for their performance; and it ought to be an invariable rule among surgeons, to prevent the patient from seeing his formidable apparatus, lest he be thereby intimidated and discouraged at the very moment he most stands in need of resolution: for inalties are not wanting of patients actually dying from the effects of terror, without having undergone the intended operation.**

The term *apparatus* is sometimes used to distinguish the operation of *Lithotomy or Cystotomy*; thus we say, the greater apparatus, the lesser apparatus, &c. See *Stone, cutting for the.*

**Apparatus is also used as a title of several books composed in form of catalogues, bibliothecas, dictionaires, &c. for the ease and convenience of study.**

The apparatus to Ciceron, is a kind of concordance or collection of Cicernian phrases, &c. The apparatus facer of Poffevin, is a collection of all kinds of ecclesialical authors, printed in 1611, in three volumes.—Glossaries, comments, &c. are also frequently called *apparatures.*

**Apparent, from apparo, I appear, that which is visible to the eye, or evident to the understanding.**

**Apparent, in Mathematics and Astronomy, is ufed to signify things as they appear to us in contradistinction from real or true; and in this respect the apparent flate of things is often very different from their real state; as in the case of distance, magnitude, &c.**
APP

APPARENT Altitude, Conjunction, Diameter, Distance, Figure, Horizon, Magnitude, Motion, Place, Time, &c. See the several tabulations.

APPARENT, Heat, in Lat. See Heat.

APPARENT Island, in Geography, lies in Dulcey bay, on the coast of New Zealand, and is placed by captain Cook on an arm, which captain Vancouver found to be divided into two branches, leaving that island a peninsula joined to the main land by a very high though narrow ridge of mountains; the perpendicular height and very extraordinary shape of the rocky part fronting the arm, render it a most singular and majestic promontory. As the entrance of these arms was called by Cook "Nobody knows what;" Vancouver, having particularly examined them, called them "Somebody knows what." Voyage round the World, vol. i. p. 63.

APPARITION, in Astronomy, denotes a star's or other luminary's becoming visible, which before was hid.

In which sense the word stands opposed to occultation. Thus the helical rising is rather an apparition than a proper rising.

APPARITION, circle of perpetual. See Circle of perpetual apparition.

APPARITION, in a general sense, is the appearance or semblance of a thing.

APPARITION is also used to denote a spectre, or preternatural appearance of some spirit, or the like.

We read of apparitions of angels, genii, demons, fairies, witches, departed souls, &c. apparitions of God, of Christ, the Virgin, saints, prophets, and of the devil himself.

Among the most zealous advocates of the reality of apparitions and witchcraft, we may reckon Dr. Henry More, Baxter, and Glanvil. The latter, in particular, has attempted, in a treatise entitled, "Saduceismus triumphatus," to prove the doctrine of apparitions, by arguments deduced from the nature of the soul, the testimony of scripture, and the evidence of fact; and he expressly asserts (Part II. p. 2.) that those who deny and deride the existence of apparitions and witchcraft, are prepared for the denial of spirits, a life to come, and all the other principles of religion. It is a strong presumption against the reality of apparitions, however anciently and generally the belief of them has prevailed, that they have been connected with some causes and circumstances of terror, either real or apprehended; and these have previously dispossessed the imagination for being imposed upon and deluded. The darkness of the night, the gloom that has overspread particular situations, the horror produced by the record of some diabolical occurrence, such as murder or the like, and a state of mind naturally depressed and melancholy, and of course easily alarmed, have contributed to give rise to many of those stories, that have been credulously received and as obstinately vindicated and sedulously disseminated by the vulgar. The ancients also entertained some notions concerning the state of the soul on its escape from the body, which favoured this opinion; and they were disposed to seek the spirits of their deceased ancestors near the habitations in which their bodies were deposited. Hence they would be easily led into deception; and when they fancied that they actually saw their departed friends, they distinguished the phantoms which were merely the creations of their own fancy, by the name of "shades." It ought also to be considered, that the relation and belief of apparitions have prevailed chiefly in times of ignorance, and amongst those who had the fewest opportunities for inquiry and instruction. In fact, as the night has been the season to which the appearance of ghosts has been referred, the belief of their reality has gradually subsided in proportion to the degree in which knowledge has been diffused. It ought also to be considered, that apparitions are machines that on particular occasions have been of good service to generals, to ministers of state, to priests, and others; to lay nothing of the very injudicious and culpable use that has been made of them by those with whom the care of children, at a period when their imagination is easily impressed, has been entrusted. Upon the whole, it must be allowed, that many of the apparitions that are recorded by writers, or reported by tradition, are mere delusions; others are fictitious contrived merely to amuse or to answer some purpose; and others have originated in dreams or deliriums. There are instances of shadows when we are not in the being asleep. On this principle, Hobbes (Treatise of human nature, part i. c. 2. Works, p. 102.) has endeavoured to account for the spectre that is said to have appeared to Brutus. "We read," says he, "of Marcus Brutus (one that had his life given him by Julius Caesar, and was also his favourite, and not withstanding murdered him), how at Philippi, the night before he gave battle to Augustus Caesar, he saw a fearful apparition, which is commonly related by historians as a vision; but considering the circumstances, one may easily judge to have been a short dream. For sitting in his tent pensive and troubled with the horror of his rash act, it was not hard for him, flumbering in the cold, to dream of that which most alarmed him; which fear, as by degrees it made him awake, so also it must needs make the apparition by degrees to vanish; and having no assurance that he slept, he could have no cause to think it a dream, or any thing but a vision." The well-known story told by Clarendon, of the apparition of the duke of Buckingham's father, has been solved in a similar manner. There was no man in the kingdom so much the subject of conversation as the duke; and his character was so corrupt that he was very likely to be misled by the enthusiasm of the times: Sir George Villiers is said to have appeared to him at midnight; and hence it appears probable that the man was asleep; and as he was terrified by the dream, it must have made a strong impression, and was likely to be repeated.

Mr. Andrew Baxter, in his "Essay on the phenomenon of dreaming," recurs to the principle "that our dreams are prompted by separate immaterial beings," in order to account for apparitions. If the power of such beings be unrestrained, this author maintains, that it will equally possess the fancy with delusive fancies, without waiting for the occasion of sleep to introduce them, and obtrude them forcibly upon the organ, amidst the action of external objects. For it requires but a greater degree of the same power to make delusive impressions upon the faculty, while real external objects are making true impressions upon it, than it would require to make the same impressions, while no other impression from external objects is made upon it at the same time. "If our imaginations," says Dr. Tillotson in one of his sermons, "were let loose upon us, we should be always under the most dreadful terrors, and frightened to distraction with the appearance of our own fancy; and an over-ruling power restrains these effects;" i.e. as Mr. Baxter conceives, by restraining the power of invisible beings, which would otherwise incessantly delude the soul with such unpleasing visions. Upon this hypothesis, he thinks there is nothing inconsistent in the relations of apparitions which we meet with in history, whether the facts be true or false; for these spirits may, upon some important occasions, be licenced to affect the faculty, according to the exigency of the case, that the whole scene of vision, which is then thought to have an existence from without, may be the effect of impressions made on the brain only. Thus, for instance, that apparition mentioned before which was presented to Brutus before he came
APP

over from Afia, and again the night before the battle of Philippi, the noise as of one entering into his tent which he heard, and the words spoken, “I am, O Brutus, thy evil genius, but thou shalt see me again near Philippi,” might all be only inward representations upon the fenfory, and any other person present might neither have heard nor seen any thing. This, in our author’s opinion, affords a better account of the appearance than that of Hobbes, who makes cold dreams and visions of fear, without either reaft or experience to support his affeotions. He makes Brutus to be sleeping, but Plutarch tells us, that he had slept the former part of the night immediately after eating, and had risen to digeft something in his own mind; fo that, according to Hobbes’s scheme, it was a waking vision, and it occurred without any previous distemper either external or internal. The cafe of Dion, related by Plutarch, is alleged to the fame purpofe; for he was fitting in the porch of his own house in a thoughtful and meditating attitude, when the fpirits appeared to him; and this happened while the affaffins were contriving his death, a little before he was crueltiy murdered. No men in antiquity could be lefs liable to the fimulation of weaknefs and credulity than Brutus and Dion; and therefore, according to Mr. Baxter, the terror they experienced must have proceeded from the power of some superior being. Upon the whole he thinks that although Δινογειως, or a fear of spirites, hath been much abused by vain or weak people, and carried to an extreme, perhaps by designing and crafty men, the molt rigorous philosophy will not juftify its being entirely rejected. It is true, he adds, no evil can happen to us in God’s world but by our own fault; but that subordinate beings are never permitted, or commissioned to be the ministers of his will, is a hard point to be proved; and that direct atheifm is better than this delufion is horrid. See Effay on the phenomenon of dreaming, in the “Inquiry into the nature of the human foul,” vol. ii. p. 111, &c.

The abbe de St. Pierre has a ditercure expressly on the physical method of solving or accounting for apparitions; he makes them the effect of feventh dreams, disturbed imaginations. &c.

APPARITOR, or APPARATOR, a beadle in an university, who carries the mace before the masters, and the faculties.

APPARATOR is also used in some ancient English laws, for a judge or justice.

APPARATOR comitatus. There was formerly an officer called by this name, for which the sheriffs of Buckinghamshire had a considerable yearly allowance; and in the reign of queen Elizabeth there was an order of court for making that allowance. But the custom and reafon of it are now altered.

APPARITORS also denote meffengers who served the procefs of the spiritual court. Their duty is to cite the offenders to appear, to arrest them, and to execute the sentence or decree of the judges. See flat. 21 Hen. viii. c. 5.

Among the Romans, apparitors were the fame with ferjeants or tiffiffs among us; or rather apparitor was a general term, and comprifed under it all the minions and attendants of the judges and magiftrates, appointed to receive and execute their orders. And hence, they fay, the name was derived, viz. from apporare, to be present, to be in waiting. Under the name appartiories were comprehended the scriba, acceft, interpretes, prociones, viatores, iudices, iudicatores, and even the canntifices or hangmen.

They were usually chosen out of the freedmen of the magiftrates, and their condition was held in so much contempt, that, as a mark of ignominy, the fenate appointed a city that had revolted from them to furnish them with apparitors.

There were also a kind of apparitors of cohorts, called cohortates or ofifionates, as being attached to a cohort, and doomed to that condition. The apparitors of the praetors, praetorani, were those who attended the praetors, or governors of provinces; and who, on their masters’ birth-day, were always changed, and preferred to better lots. Add, that the pontifices had also their apparitors, as appears from an infcription of an ancient marble in the Via Appia:

APPARATORI
PONTIFICVM
PARMVLRARIO.

APPAMUEE, in Heraldry. See APPAMEE.

APPEAL, derived from the French verb appeler, of the fame signification, in Law, signifies the removal of a cause from an inferior court or judge to a superior; or the having recourse to a superior judge to rectify what is amifs in a sentence passed by an inferior.

Appeals to Rome were first introduced into England in the reign of king Stephen; and though they were not strictly regarded in the succeeding reigns, they continued till the time of king Henry the eighth, when they were finally abolished by the 24 Hen. 8. c. 12. and 25 Hen. 8. c. 19. 21.: by which appealing to Rome from any of the king’s courts, fuing to Rome for any hecnece or difpenfation, and obeying any procefs from thence, are made liable to the pains of premunire.

Appeals lie from the archdeacon or his official to the court of arches, and from the arches to the archbishop, and from the bishop or his commiffary to the archbishop; and when the caufe concerns the king, appeal may be brought in fifteen days from any of the faid courts to the prelates in convocation, 24 Hen. 8. c. 12.: and by the 25th Hen. 8. c. 29. for lack of justice in the archbishop’s courts, the party may appeal to the king in chancery, where commiffaries are nominated, and by reason of this appointment they are called delegates; and after the decision of this court, a commiffion of review may be granted by the king as supreme head, to review the definitive sentence given in appeal in the court of delegates.

Appeals lie from all the ordinary courts of justice, and also from the court of equity in chancery, to the houfe of lords, who judge ex deriure ruft; i.e. no appeal lies from them.

But appeals from a court of equity, and writs of error from a court of law, differ in these two particulars: 1. The former may be brought upon any interlocutory matter; the latter upon nothing but a definitive judgment. 2. On writs of error the houfe of lords pronounces the judgment; on appeals it gives direction to the court below to rectify its own decree.

There are appeals from ecclefialitical justice to fecular.

The first initiation of this is that of Paulus Samoletanus, who being condemned and deposed by the second council of Antioch, refused to surrender the episcopal houfe to Donnus, who had been elected his fucceflor, and appealed to the emperor.

APEAL is also used, in Common Law, in the fame fence with accufation among the Civilians. And when thus spoken of as a criminal prosecution, it is derived from the French verb active appeller, to call upon, damnmum, or challenge one, and denotes an accufation by a private subject against another, for some heinous crime; demanding punishment on account of the particular injury suffered, rather than for the offence against the public. This method of prosecution is fill in force, but very little in use. This private procels, for the punishment of public crimes, had probably
probably its original in those times, when a private pecuniary satisfaction, called a _wergild_, was commonly paid to the party injured, or his relations, to expiate enormous offences. This was a custom derived to us, in common with other northern nations, from our ancestors the ancient Germans: and we find in our Saxon laws, particularly those of King Athelstan, the several wergilds for homicide, established in progressive order, from the death of the corset or penant, up to that of the king himself. And in the laws of King Henry I. we have an account of the other offences that were redeemable by wergild, as well as of those that were not so redeemable. As therefore, during the continuance of this custom, a process was certainly given for recovering the wergild by the party to whom it was due; it seems that, when these offences by degrees grew no longer redeemable, the private process was still continued, in order to infuse the infliction of punishment upon the offender; though the party injured was allowed no pecuniary remuneration for the offence. It was also anciently permitted, that any subject might appeal another subject of high-treason, either in the courts of common law, or in parliament; or for treasons committed beyond the seas, in the court of the high-constable and marshal. The cognizance of appeals in the latter still continues in force; and so late as 1631, there was a trial by battle awarded in the court of chivalry, in such an appeal of treason; but that in the first was virtually abolished by the statutes _5 Edw. 3. c. 9._ and _25 Edw. 3. c. 4._; and in the second expressly by statute _1 Hen. 4. c. 14._

So that the only appeals now in force, for things done within the realm, are those of felony and mayhem. Mr. Kyd, the ingenious editor of Comyn's _Digil_, observes, "that the appeal of treason does not appear to have been taken away by the Stat. _1 Hen. 4. c. 14._ or any other. But as no influence occurs of any such appeal, before any court of common law, either since that statute was made, or for many years before, the law relating to such appeals feems to be wholly obsolete at this day."

_Criminal appeals_ are either capital or not capital. Of the latter sort, _appeals de pace_, _de plagia_, _de imprisionamento_, and _of mayhem_, are now become obsolete; having been long since converted into actions of trespass. _Capital appeals_ are either of treason or felony. The latter may be subdivided into _appeals of death_, or of murder, _appeals of larceny_, _robbing_, _appeals of rape_, and _appeals of arson_, which last are now entirely obsolete. _An appeal of felony_ may be brought for crimes committed either against the parties themselves, or their relations. The crimes against the parties themselves are _larceny_, _rape_, and _arson_. And for these, as well as for mayhem, the persons robbed, ravished, mained, or whose houses are burnt, may initiate this private process. The only crime against one's relations, says judge Blackstone, for which an appeal can be brought, is that of killing him; either by murder or manslaughter; but Mr. Tomlin, in his edition of Jacob's _Law Dictionary_, observes, that this seems to be an unguarded alteration of the learned commentator, as an appeal is given to the husband, next of kin, &c. by _stat._ in _cafe of rape._

_All appeals of death_ are _indictive_ actions which the law gives to the wife for the death of her husband, or to the heir male for the death of his ancestor; which hereditum was confined, by an ordinance of king Henry I. to the four first degrees of blood. It is given to the wife on account of the loss of her husband; therefore if the marries again, before or pending her appeal, it is lost and gone: or if she marries after judgment, she shall not demand execution. The heir must also be heir male, and such a one as was the next heir by the course of the common law at the time of the killing of the ancestor. But this rule has three exceptions:

1. If the person killed leaves an innocent wife, the only, and not the heir, shall have the appeal.
2. If there be no wife, and the heir be accused of the murder, the person, who next to him would have been heir male, shall bring the appeal.
3. If the wife kills her husband, the heir may appeal her of the death. And by the statute of Gloucester, _6 Edw. 1._ c. 9. all appeals of death must be filed within a year and a day after the completion of the felony by the death of the party, which seems to be only declaratory of the old common law. The court must set forth the fact, and the length and the depth of the wound, the year, day, hour, place where done, and what weapons, and that the party died in a year and a day; and by the above statute, principal and accessory before and after are to be joined in appeal; and this is to be observed, though the accessory is guilty in another county. _3 Hen. 7. c. 1._ The case of other appeals than of murder, as of robbery, rape, &c. are not within this latt statute, and therefore _auteriors aequius_, upon an indictment within the year, stands at common law, a good bar to an appeal of robbery, or any offence besides murder or manslaughter; and yet the judges at this day never forbear to proceed upon an indictment of robbery, rape, or other offence, though within the year, because appeals of robbery especially are very rare, and of little use, since the statute of _21 Hen. 8. c. 11._ gives restitution to the prosecutor as effectually as upon an appeal.

The several appeals above enumerated may be brought previous to any indictment; and if the appellic be acquitted thereon, he cannot be afterwards indicted for the same offence. But if the appellant does not prosecute his appeal, the appellee may be indicted. If a man be acquitted on an indictment for murder, or found guilty and pardoned by the king, fiill he ought not (in finickiers) to go at large, but be imprisoned, or let to bail till the year and day be past, by virtue of the statute _3 Hen. 7. c. 1._ in order to be forthcoming to answer any appeal for the same felony, not having as yet been punished for it; though if he has been found guilty of manslaughter, on an indictment, and hath the benefit of clergy, and suffered the judgment of the law, he cannot afterwards be appealed for, it is a maxim in law, "_that nemo his _punitur per edem dolbros._"

If the appellee be acquitted, the appellee (by virtue of the statute of _Wilmouth 2. 13 Edw. 1. c. 12._), shall suffer one year's imprisonment, and pay a fine to the king, besides restitution of damages to the party for the imprisonment and irkamy which he has sustained; and if the appellee be incapable of making restitution, his abettors shall do it for him, and also be liable to imprisonment. This provision proved a great discouragement to appeals, so that henceforward they ceased to be in common use. If the appellee be found guilty, he shall suffer the same judgment as if he had been convicted by indictment; but with this remarkable difference, that, on an indictment, the king may pardon and remit the execution; but on an appeal, which is at the suit of a private subjéct, to make an atonement for the private wrong, the king can no more pardon it, than he can remit the damages recovered on an action of battery. And the ancient usage was, so late as Henry the fourth's time, that all the relations of the slain should drag the appellee to the place of execution. However, the punishment of the offender may be revoked and discharged by the concurrence of all parties interested; and as the king of his pardon may frustrate an indictment, so the appellant by his release may discharge an appeal. A peer in appeal of murder, shall not be tried by his peers, but by a common jury; though he shall upon an indictment for murder. Where appeal of death is brought, the defendant cannot
APP

cannot justify se defendendo ; but must plead not guilty, and the jury are to find the special matter.

An appeal is prosecuted two ways, either by writ, or by bill.

Appeal by writ is, when a writ is purchased out of chancery, by one for another, to the intent that he may appeal a third person of some felony committed by him, finding pledges that he shall do it.

Appeal by bill, is where a man of himself gives up his accu-

sation in writing, offering to undergo the burden of ap-

pealing the person therein named. The appeal of death may be brought by bill before the justices in the King's Bench; before justices of gaol-delivery, and commissioners of oyer and terminer, &c. or before the sheriff and coroner in the county-court; but the sheriff and coroner have only power to take and enter the appeal and count, for it must be re-

moved by certorari into B. R.

In appeal by original, principals and accessories are gene-

rally charged alike without distinction, till the plaintiff

counts; but it is otherwise in appeals by bill. There is but one appeal against the principal and accessory: if the prin-

cipal is acquitted, it shall acquit the accessory: and both shall have damages against the appellant on a false appeal, or the accessory may bring a writ of conspiracy. If the defendant in appeal is acquit or acquit, or the plaintiff nonquit after appearances, which is peremptory, no other appeal lies. If an indictment and an appeal be depending at the same time, against the same person, the appeal shall be tried first, if the appellant be ready; otherwise the king would destroy the suit of the party.

Appeal of Mayhem is the accusation of one that hath

maimed another; but this being generally no felony, it is in a manner merely an action of trespass, and nothing is re-

covered by it but damages. Bacon calls this appellum de

plagis & maibennio, and has a whole chapter upon it. In this appeal, the defendant pleads that the plaintiff had brought an action of trespass against him for the fame wounding, and had recovered, and damages given, &c.; and this was a good plea in bar of the appeal, because in both actions damages only are to be recovered. In king John's time, there is recorded an appeal against a Jew, qui fecit ementuladi quodam nepoten suam.

Appeal of rape lies where a rape is committed on the body of a woman. A femme covert without her husband may bring appeal of rape; and statute 6 R. 2. c. 6. gives power where a woman is ravished, and afterwards consents to it, for a husband, or a father, or next of kin, there being no husband, to bring this appeal: also the criminal in such case may be attainted at the suit of the king. If a woman be ravished by her next of kin, and consents to him, and has neither husband nor father, the next of kin to him shall have the appeal; for he has disabled himself by the rape, whereby he becomes a felon. If there be no husband nor

father, the appeal is given to the heir, whether male or female. The statute of Wellm. 1. c. 13. which reduced the crime of rape to a trespass, enacts that appeal of rape shall be brought within forty days; but by statute Wellm. 2. c. 34. which makes this offence felony, no time is limited for the prosecution, so that it may be brought in any reasonable time. It is to be commenced in the county where the rape was committed. It is held, that though formerly the defendant might have his clergy, it is taken away by the statute 18 Eliz. c. 17. See further on this subject, 2 Hawk. P. C. c. 23. §. 58—73.

Appeal of robbery or larceny is a remedy given by the common law, whereby a person robbed of his goods may obtain restitution of them. If a man robbed makes freth pursuict after, and apprehend and prosecute the felon, he may bring appeal of robbery at any time afterwards. By statute

21 Hen. 8. c. 11. restitution of stolen goods may be had

on indictments after attainer, as on appeals; and appeals of robbery, as well as of mayhem and rape, are now much out of use. By the express provision of statute 4 & 5 W. & M. c. 3. an accomplice committing two others guilty of robbery, shall have the king's pardon; and this shall be a good bar to an appeal of robbery. Blackist. Com. vol. iv.

Jacob's Law Dictionary by Tomlin. tit. Appeal.

Appearance, the exterior surface of a thing; or that which first strikes the sense, or the imagination.

The Academicians maintain, that the sensible qualities of bodies are only appearances; and the like doctrine is held by some later philosophers.

Our errors arise chiefly from a too hasty and precipitate

affront of the will, which acquiesces too easily in the appearance of truth.

Appearance, in Law, is the defendant's engaging to

answer a cause or action entered against him in some
court of judicature; and it is done by filing common or special bail, when he is served with copy of, or arrested on any process out of the courts at Welfington, and there can be no appearance in the court of B. R. or king's bench, but by special or common bail. There are four ways for defendants to appear to actions; viz. in person, or by attorney, by perons of full age; and by guardians or next friend, by infants. It is now the common course for the plaintiff or defendant, in all kinds of actions where there may be an attorney, to appear by attorney, and put in his warrant without any writ from the king for that purpose, as was formerly the case by common law. And, therefore, generally, in all actions real, personal, and mixt, the demand-

ant or plaintiff, tenant or defendant, may appear by attorney. But in all cases where the party stands in contempt, the court will not admit him to appear by attorney, but oblige him to appear in person. In all cases where process issues forth to take the party's body, if a common appearance only, and not special bail is required, there every such party may appear in court in his proper person, and file common bail. In a capital criminal case, the party must always appear in person, and cannot plead by attorney; also in criminal offences, where an act of parliament requires that the party should appear in person, and likewise in appeal or on attachment. On an indictment, information or action for any crime whatsoever under the degree of capital, the defendant may, by the favour of the court, appear by attorney; and this he may do as well before plea pleaded, as in the proceeding after, till conviction. Attorneys sub-

scribing warrants to appear, are liable to attachment, upon non-appearance; and where an attorney promises to appear for his client, the court will compel him to appear and put in common bail in such time as is usual by the course of the court; and that although the attorney say he hath no war-

rant for appearance; nor shall requiring a warrant of attorney to delay proceedings excuse the attorney for his not appearing, who may be compelled by the court. The defendant's attorney is to file his warrant the same term he appears, and the plaintiff the term he declares, under penalties by Stat.

4 & 5 Ann. c. 16. An attorney is not compellable to ap-

pear for any one, unless he take his fees or back the war-

rant; after which the court will compel him to appear.

In actions by original, appearances must be entered with the falsier of the county; and if by bill, they shall be entered with the prothonotary; and by statute 5 Geo. 2. c. 27. where defendant is served with a copy of the process, appearances and common bail are to be entered and filed by him within eight days after the return of the process; and if defen-

dant
APPEND

fendant does not appear, plaintiff may, on affidavit of the service of process, enter a common appearance for defendant, and proceed upon it: statute 12 Geo. 1. c. 29. And by statute 23 Geo. 3. c. 33. § 22, a common appearance may be filed by plaintiff, without entering or filing a record, a memorandum or minute for defendant. Jacob's Law Dict. by Tomlin.

**Appendance Day of Term.** SeeTerm.

**Appendance, in Perspective,** is the representation or projection of a figure, body, or like object, upon the perspective plane.

The appearance of an objective right line is always a right line. See Perspective. The appearance of an opaque body and a luminous being given, to find the appearance of the shadow, see Shadow.

**Appendance of a star or planet.** See Apparition.

**Appendance, in Astronomy,** &c. are more usually called phenomena and phaen.

In Optics, we use the term direct appearance for the view or sight of any object by direct rays, without either refraction or reflection.

**Appearances, to issue,** is to discharge one's duty seemingly, or acquit one's self of the formalities and externals thereof; so as to save the character, and avoid giving scandal or offense.

**Appearances, in Physiology.** See Phasmata.

**Appeasing Remedies, in Medicine,** are those which allay the pain in a disease, and give the patient some respite; and at the same time contribute to the cure. These are not the same as what we otherwise call Parkeorics, Anatomy, &c.

**Appelldorn, in Geography,** a town of the united Netherlands, in the duchy of Gueldres, 43 leagues N. W. of Zutphen.

**Appellant, in Law,** denotes a person who brings an Appeal.

**Appellants, in Ecclesiastical History,** is a denomination distinguishing those among the French clergy who refused to subscribe the constitution or bull Unigenitus, issued by Clement XI. in 1713, and appealed from it, either to the pope better informed, or a general council.

**Appellation signifies the name by which any thing is known or distinguished. See Name.**

**Appellative, formed of appellee, to name a thing, in Grammar,** denotes a common name which stands for a whole rank of beings, whether general or special, in contradistinction to proper names, which belong only to individuals, e. g. fish, man, horfe, tree, &c. are appellatives; and so are trout, elk, lobster; for the, all agree to many individuals, and form to many species: but Peter, Gabriel, Bucephalus, are proper names. See Name.

**Appellee, in Common Law,** signifies the person against whom an appeal is brought. See Appeal, and Approval.

In the civil law, appellement, appellementus, properly belongs only to the judge before whom an appeal is brought.

**Appenage.** See Apnance.

**Appendant, from appendo, I hang, in Law,** understood of such things as by preference have belonged, appertained, and been joined, to some other principal thing.

Thus an hospital may be appendant to a monastery; a common of fishing, to a freethed; a feast in a church, to a house; or the like. As appendants are ever by preference, they are thus distinguished from appurtenances, which may be created in some cestas in this day. See Apportion.

**Appendant, Adowfon.** See Advowson.

**Appendant, Common.** See Common.

**Appendicula, or Appendix veriformis, in Anatomy,** an appendage to the intestines, or spout colic. See the description of the Intestines.

**Appendiculae AFteriarum, voices of afterlee, a name given by the writers on Natural History to certain small branches which are placed in a circular order at different distances upon the column of the afterlee.**

**Appendiculatus, Appendice, in Anatomy,** a term mostly used to express an additional small leaf.

**Appendix, or Appendix, in Anatomy,** is a part in some measure distinct yet connected to another. Thus, the Fallopian trumpets, ovaries, &c. are called the Appendices Uteri.

**Appendix is more particularly used in the same sense with Epithysis.**

**Appendix, or Appendix, a thing necessary to, or dependant on another.**

The term is chiefly used in matters of literature, for an additional discourse, placed at the end of any piece, or writing, to explain or prosecute something there left deficient, or to draw conclusions from it. In which sense the word coincides with Supplement.

**APPENDULA, from ad, and pendu, I hang to, or Appendix melancholy, such as are outwardly applied, by hanging about the neck.**

Such are divers amulets, necklaces, phylacteries, &c.

**APPENZELL, in Geography,** a town of Swifferland, and principal place of a canton to which it gives name. N. lat. 47°. 17'. E. long. 9°. 20'. It is supposed to have derived its name from the Latin, "Abbats cella," and to have been originally only a religious house belonging to the abbey of St. Gal.

**APPENZELL, the thirteenth canton of Switzerland, surrounded by the Rhinthal and the lands belonging to the abbey of St. Gal, is about ten leagues from call to well, and from fix to seven broad. The whole country is hilly and mountainous. It is divided into twelve communities; of which are Protectors, and nine Roman Catholics. The country formerly belonged to the abbey of St. Gal; but the inhabitants, wearied with exactions and oppressions, affrated their liberty against the troops of the abbot and the Austrian sent to sucur them, and sealed it with their blood. In the year 1513, it was admitted into the Helvetic league, and constituted the thirteenth canton. The population is estimated at 51,000, 13,300 being catholics, and 38,000 protestants; which is a large number in a country of not more than sixty square leagues, and composed for the most part of glaciers, inaccessible rocks and precipices. It yields, however, good pasturage; and, in some parts of it, the manufacturers have of late been much encouraged. This canton is popularly divided into Innerodden, or the interior part; and Auffrooden, which comprehends the tracks fituate near the borders. In the former part, pasturage is the principal employment; and whatever respects the feeding the cattle, the management of dairies, and the making of cheese, is carried to a high degree of perfection among these mountaineers. The rich and poor are cow-keepers; but the poor, having little or no graps land, employ agents through the canton to inform them where hay may be obtained; and the fenn, or cow-keeper, bargains for it, and drives his cattle, when they return from grass, to the places where the hay is to be had. The person who sells his hay, furnishes the fenn not only with flabbling for his beasts, but boards and lodges him and his whole family. In return, the fenn, besides paying the stipulated price for the hay, allows to his hoist as much milk, whey, and ziegge (a kind of lean cheese), as may be used in the house, and leaves him also the manure of his cows. In the middle of April, whea
when nature revives, the fenn again issues forth with his herd to the meadows and fertile Alps, which he rents for the summer; so that the life of these people is a constant migration, and they enjoy with health, content, and cheerfulness. The original breed of cattle in this canton is of a black and brown coat; but the fenns, preferring a motley herd, compose it of black, brown, and some bay cows: to produce which set a black cow with a white belly and a stripe of the same colour along the back is required. The animals are curried, dressed, and tended with the utmost care; and thus they have an appearance of sleekness, cleanliness, and health, superior perhaps to that of any other cattle in the world. The mountaineers, it is said, lives with his cows in a constant exchange of reciprocal acts of gratitude; the latter affording him almost whatever he wants; and the fenn, in return, providing for and cherishing them, sometimes more than his own children. The fine cattle, which are the pride of the cow-keeper who inhabits the Alps, are adorned with large bells suspended from broad thongs; and every fenn has a harmonious set of at least two or three bells. The whole peal, including the thongs, will sometimes be worth between 150 and 150 guilders; while the whole apparel of the fenn himself, when belted, does not amount to the price of 20 guilders. These ornaments, however, are only worn on particular occasions; as in the spring, when the cows are driven up the Alps, or removed from one pasture to another; or when, in winter, they travel to the different farms, where the owner has contracted for the hay. The fenn, arrayed in his belt garb, leads the procancellation, singing the rance des vaches, consisting of simple tones mosty formed within the throat, and without articulate sounds or words; three or four fine goats follow, then comes the hand-som cow with the great bells, and then two others with smaller bells; these are succeeded by the rest of the cattle; and in the rear is the bull, with a one-legged milking-floor hanging on his horns; and the procession is closed by a fledge which are the implements of the dairy. The cows themselves, as well as the keeper, seem to be pleased with their ornaments; and if the leading cow is deprived of her honours, she manifests her grief by lowing incessantly, abstaining from food, and becoming lean; and she pursues her rival, who has obtained the badge of superiority, with vengeance, butting, wounding, and perfecuring her in the most furious manner. The cows, when dispersed on the Alps, are brought together by the voice of the fenn, who allures them to him by singing the rance des vaches. Of the urine of the cattle, the farmers of Appenzell make salt-petre by a very simple process. Under their stables, which are built on sloping ground, so that one side of the edifice rests on the hill and the other is elevated by means of two strong piles which support it two or three feet above ground, are pits filled with sandy soil. The animal water continually oozes through the planks of the floor; and, having drenched the soil contained in the pit for two or three years, the pit is emptied, and the salt-petre is collected and refined in the usual manner.

Among the various modes of industry in Innerooden, that of feeding flails is one of the most singular. In the garden grounds along the river Sitter, such numbers of flails are kept during the summer season, that the sound caused by the motion of their denticulated jaws, while they are eating, is distinctly heard at several paces from the spot. Young flails are collected in the adjacent parts, placed in these gardens, and supplied (till, on the approach of winter, they inclose themselves), with leaves of lettuce, celeriac, cabbage, and other vegetables, by which they grow and fatten to a surprising degree. Some time before Lent, the owners pack up the closed flails in casks, and carry them for sale to the convents of Suabia, Bavaria, and Austria, and even as far as Vienna, where they are purchased as delicacies. By this traffic some have acquired a handsome fortune.

The food of the inhabitants is exceedingly simple, consisting chiefly of milk, cheese, whey, oatmeal, and potatoes. Bread is not in common use, except among the rich. Their dress is equally plain; and as there is less disparity of fortunes among them than in almost every other part of Europe, a great uniformity prevails in diet, dress, and manners; and this constitutes the main support of their civil and political equality. Some travelers, who have observed crowds of beggars in this canton, have been led to draw erroneous inferences concerning the prosperity of the people; but the fact is, that hosts of beggars, attracted by the charitable disposition of the Appenzellers, flock thither from Suabia, and other neighboring provinces of Germany. The mountaineers of Appenzell are undisturbed and content, free from the oppression of arbitrary power and the exactions of taxes, and solely occupied with their cows and the Alps on which they graze. The government of this republic confines itself to merely granting protection, and providing for the security of persons as well as of property. The people have no desire of knowledge; and are so ignorant, that the majority of the inhabitants of Innerooden cannot read and write; and of course they have no schools, or such as are in the most deplorable state. This ignorance is necessarily attended with gross and wretched superstitution. Parents, whose children are taken ill, feel no medical aid, but have matles read for the purpose of obtaining from heaven their speedy dissolution. On the loss of a child they are inconsolable, under an apprehension that for want of baptism it is gone to hell; but, on the contrary, the parents are joyful, and their friends say to them by way of congratulation, “now you have an angel in heaven.” The punishment inflicted on incontinence is not very severe; the transgressing parties only paying a fine of five guilders each, provided that both be unmarried; but if any female commits the same fault three times, she is sentenced to be publicly whipped. Yet popular opinion requires, that he who violates a virgin shall make her his lawful wife; and if they are not joined in marriage, both of them, especially the ravisher, are branded with indelible shame. The girl, in such a case, is prohibited from wearing the badge of virginity, which is a metal pin stuck into the braided hair, and is obliged to cover her head with a black or brown hood. The male offender is virtually divested of those privileges which belong in common to all citizens; an humiliation than which there is none more grievous in democratic states; for the man so disgraced is civilly dead in his own country, having lost what is most dear to him, the advantages of a freeman. The preceding remarks pertain chiefly to Innerooden, the inhabitants of which are Roman Catholics; but in Auflerooeden, and the outer parts of the canton of Appenzell, the reformed religion has been established since the middle of the sixteenth century. From that period, the manufacture of linen, muffin, and cotton cloth has constituted the chief branch of industry among the reformed Appenzellers. The manufacturers of Appenzell have now attained to such a degree of skill, as to be able to spin out of half an ounce of flux, a thread measuring from 9 to 10,000 feet in length; whence their cambrics are in great demand on the continent. The Appenzellers, apprized of the improvements of the manufactories in Ireland and Scotland, and desiring to lose their trade, have lately begun to introduce machines for spinning and carding wool, to prevent the poorer class from being driven to despair in their attempts to procure any subsistence.
wool, invented by an inhabitant of Reichtobel. Pastures, in this district, has of course decreased; the large pasture grounds being divided into small meadows, each sufficient only for two or three cows. The people of Appenzell are industrious and persevering, in common with other Swiss; but their distinguishing feature is quickness of apprehension. They accordingly manifest particular ingenuity in inventing, imitating, and improving machines, as well as other branches of mechanics, without any assistance from instruction or books. Besides some exceedingly skilful weavers, several among them have acquired reputation by the manufacture of watches, clocks, and fire-engines. The wooden bridges of Ulrick Grubenmann, a native of the village of Teufen, are very generally known on the continent. This ingenious mechanic, it is said, offered to build an arched wooden bridge across the river of Derry in Ireland, which is 60 feet wide; but his plan was rejected.

See Schilderung des Gebingfolkr des Schweiz**, &c. or A Description of the Tribes which inhabit the mountainous parts of Switzerland. By John Gottfried, M. D. vol. i. containing the canton of Appenzell; Svo, Leipzig, 1783.

APPERCEPTION, or APPERCEPTION, is used by Leibnitz and his followers, as an attribute of the mind, considered as confound of, or reflecting on its own perceptions; in which sense the word amounts to the same usage as that Des Cartes and others call consciousness.

APPERWACK, or APPERWACK RIVER, in Geography, lies about E. S. E. from the island and city of Cayenne, on the coast of Guiana, in South America. An island extends across the entrance, which is surrounded by a sand bank, and off the river is a cluster of rocks called the Contables.

APPETITE; **APPETITUS, APPETENCY, formed of ad, to, and pate. I crave, in Physiology, a desire of enjoying something that is apprehended to be necessary or conducive to happiness. When this inclination towards any object considered as good, is guided by reason, and results from reflection on the real value of the object, it is called rational; but when it proceeds from the mere impulse of the senses, without any distinct apprehension of the value of the object, it is denominated sensitive.

Appetite is restrained, by Hutcheson, to fuch of our desires as have a previous painful and unpleasent situation, antecedently to any opinion of good in the object; nay so as that the object is often chiefly esteemed good only for its allaying this pain or uneasiness, or if it give also a positive pleasure, yet the unpleasent sensation is previous to, and independent of this opinion of good in it. By another ingenious writer (see Lem. Crit. vol. i. p. 44.), appetites are represented as passions directed to general objects, in contradistinction to passions directed to particular objects, which retain their proper name. Thus we say an appetite for fame, for glory, for conquest, for riches; but we say the passion of love, of gratitude, of envy, &c. Appetite may be also distinguished from passion, since the latter has no existence till a proper object be presented: whereas the former exists first, and then is directed to an object.

Some have erroneously ascribed the appetites solely to the corporal sytem or animal part of man; but this mode of representing them must appear to be a mistake on a closer examination; since, though the generality of moral writers may be inclined to regard the grosser appetites as having their seat in the body, and thence term them sensual and carnal, they never reproach the more refined species of corporal enjoyments with these degrading epithets: nor do they accuse a man of being fraudulently disposed, if he loves music, or receives delight from the contemplation of the beauties of nature. Dr. Reid (Essays on the active Powers of Man, Eff. iii. p. 122, &c.) limits the term appetite to a particular class of desires, which belong to the animal principles of action, and which are distinguished by the following properties. Every appetite is accompanied with an uneasy sensation proper to it, which is strong or weak in proportion to the desire we have of the object. Moreover, appetites are not constant, but periodical, being fated by their objects for a time, and returning after certain periods. He adds, those that are chiefly observable in man, as well as in most other animals, are hunger, thirst, and lust. The ends for which our natural appetites are given, are too evident to escape the observation of any man of the least reflection: two of those above enumerated are intended for the preservation of the individual, and the third for the continuance of the species. To act merely from appetite is neither good nor ill in a moral view: it is neither an object of praise nor of blame; and the person who yields to its impulse, when there is no reason to the contrary, acts agreeably to his nature. Appetites, considered in themselves, are neither social principles nor selfish. They cannot be called social, since they imply no good for the good of others; nor can they justly be called selfish, though they be commonly referred to that class. To this purpose, Dr. Reid observes, that appetite draws us to a certain object, without regard to its being good for us, or ill; nay, in some cases, self-love is facilitated to appetite. But it may be replied, that the impulse of appetite supposes the previous apprehension of good; though this apprehension, and the appetite that results from it, may be misguided and perverted. Besides the appetites which nature hath given to us for useful and necessary purposes, we may create appetites which nature never gave. As it is therefore belike to preserve our appetites in that tone and degree of strength which nature gives them, so we ought to beware of acquiring appetites which nature never gave; these are always useless, and often very hurtful. It should also be considered, that although there be neither virtue nor vice in acting from natural appetite, yet there may be much of either in the management of our appetites; and the power of self-government is necessary for their restraint and regulation.

Appetite, in Medicine, is more particularly used to denote a natural periodical call or desire to eat and drink, occasioned by a certain uneasiness and painful sensation, and with a view of repairing what had been wasted by the several exertions of the body. A loss or prostration of appetite is called Anorexia. The defect of appetite is of two kinds, and is usually divided, by medical writers, under two names, the anorexia and nausea.

The anorexia is a too great abstinence from food, which sometimes has its origin from depravation of the stomach, sometimes from other causes more remote.

The nausea is defined to be a plenary abstinence from foods, being a complaint of the same nature and origin with the anorexia, but differing in degree.

The figs are very obvious to be a distaste to food, which is common to both; but there is this difference, that in an anorexia the patients usually eat something, though without appetite, and are troubled always with a pain and uneasiness of the stomach after it; but in the nausea there is a greater dilution of food of all kinds, and frequent vomiting. Men of idle lives, and such as drink too freely of strong liquors, are subject to idiopathic defects of appetite, from actual injuries in the stomach; others labouring under the different diffeases before mentioned, are as often subject to the symptomatic. People of a languid habit, when afflicted with a loss of appetite, always find great relief in acids of the milder kind; and those of a leucophlegmatic
leucocephalogen habit are often cured by taking small doses of elixir propinquia every day before dinner. Some perons are very fond of external applications to the nostem in those cafes, but there are rarely to be found of any great service. The bell of them is a phaler of tinctura balsami, with oil of mallic.

A preponderous appiency of things not proper for food is called pica; and an inmoderate appetite is called bulimia, or syneus comina. Some, however, distinguish between the syneus, and tanine apples; making it the distinguishing character of the latter, that it is attended with a hentary or other coelal flux.

**Appetite exciue. See orexis.**

Dr. Cullen, in his arrangement of diseaes, makes two different classes of aetiosa and deficient appetites under the order of dierecius: to the former he refers kulmi, poly-
dipheria, pica, syneusiothys, nymphomania or furor uterinus, and anse峛us; to the latter, anorexia, adipsia, and anaphrodisia.

APPIA, or APPIA, in Ancient Geography, a town of Achaia, in Phrygia.

APPIADES, in Mythology, five divinities so called be-

cause their temples were at Rome near the fountains of Appius, viz. Venus, Pallas, Vesta, Concord, and Peace.

APPIAN, in Biography, a Greek historian, was a native of Alexandria, and lived under the regns of Trajan, Adrian, and Antonianus Pius, in the former part of the second cen-
tury. In the time of Trajan, he settled at Rome, and gained a reputation as an advocate that he was chosen one of the procurators of the emperor, and had the government of a province assigned to him. In the preface to his history, he informs us, that he wrote about the 50th year of Rome, and therefore this preface must have been written about the year of Christ 147.; or 148. His Roman History was compiled in 24 books, and compiled, not in the chronological order of Dionysius Haliearnassenis and of Polybius; nor in the biographical method of Plutarch, nor in a continued series like that of Livy, but in the order of the countries in which the events that are related by him happened, as Italy, Gaul, Sicily, Spain, Africa, Greece, Syria, Parthia, Egypt, and Arabia. He is charged with many errors by Bodin, Sidonius, and Scaliger; though the former allows, that he is the only historian, who gives a just and clear account of the Roman provinces, cities, and armies, and a lively description of the Roman empire. La Mothe le Vayer thinks that the principal ground of complaint against him, is his undue partiality to the Romans, so that he represents the right as well as the advantage to be always on their side, to the prejudice of all other nations, and even of his own country. He is also charged with having borrowed many passages from Polybius, Plutarch, and other authors, without acknowledgment; inomuch that Scaliger reproachfully calls him " alienorum laborum fucum," a drone who robs the industrious bees of their labour. Pholius, however, is of opinion, that he wrote with the utmost regard to truth, and that he has flown a more accurate and extensive acquaintance with military affairs than any of the historians; while we read him, he says, we cannot but imagine that we see the battles which he describes. But his chief talent, according to this author, is displayed in his orations, in which he moves the passions as he thinks proper, either in animating the resolution of the soldiers, or reproving the impetuousity of those who were too precipitate. His iyle is plain and simple, without any thing turgid or superfluous. In his preface he has given a general description of the Roman empire. Of the nine first books of his "History," some fragments remain, which are preferred in Ursinus's " Excerpta de legationibus," published in Greek, at Antwerp, with notes, in 1592, 4to.; and some of them are extant in the "Excerptae Perieoscianae," published by Valerius, with a Latin version and notes, at Paris, in 1634, 4to.; of the fourth book on the war with the Gauls, only an epitome remains; the fifth and seventh books, on the affairs of Spain, and the war with Hannibal, were first published, in 1599, by H. Stephens, at Paris, in 1557; the eighth, on the affairs of Libya; the eleventh and twelfth, on those of Syria and Parthia; five books on the Civil Wars; and fragments of the twenty-third, on the af-
tairs of Illyria; are extant. A Latin version of several parts of Appian, by Petrus Candidius, was printed at Rome, in 1472, and at Venice, in 1477 and 1493, in folio. An edition of Appian was published, in Greek, by Charles Stephens, with various readings, at Paris, in 1557; in folio; another, in Greek and Latin, was published by Henry Ste-

APPIAN AQUEDUCT, was fo called from Appius Claudius, who was censor of Rome in the 442d year of that city. This aqueduct began seven miles from Rome, and after having run a great way under ground, discharged part of its waters through the gates Capenna and Trigemina, and conveyed the rest quite to the Campus Martius; and thus the whole city was plentifully supplied. It was dug under ground, and laid very deep, says Frontinus (De Aqueduc-
tibus;), either because the arts of levelling was not then brought to perfection, or because the Roman territory was too much exposed to the incursion of its enemies, who might have destroyed the lately arches, and intercepted the water. This water was for many ages called "Aqua Appia." The principal fountain under this denomination, was placed in the forum of Cesar, below the temple of Venus Appiaede; and by a verse of Ovid it appears to have formed a jet of water:

"Appius expressit aera pulsat aquas."

APPIAN WAY, a great Roman highway, constructed by Appius Claudius, censor of Rome, in the 442d year of that city. It commenced at the gate Capenna, now called St. Sebastian's, and passing over the mountain called St. Angeli, crosses the plain of Valdruma, the Papus Pomponia, and ends at Capua, which was the limit of the Roman empire.

The Appian way, called by Statius (Sylv. i. 12.), "the road of queens," extended about 140 miles, and was wide enough for two chariots to go abreast without inconve-
nience. The stones which Appius employed in this work, were brought from a great distance, and were as hard as flints. They were previously squared and smoothed by skilful workmen, and then joined together without any cement; so that they appeared for several miles like a single stone. In the beginning of Augustus's reign, this road reached to Brunduimum, that is, 238 miles farther; but it is not certain, who was the manager of this additional work. It is generally ascribed to Cesar. Dr. Burnet, in his Let-
ters, says, that in many places, it is full as entire as when it was first made. On each side of it was a deep ditch for receiveing off and conveying away the water.

Catus Graceus placed the small columns called termii, which marked the miles.

The new Appian way was constructed by Caracalla, from his baths to the gate Capenna, where it joined the other.

APPIANI, GIUSEPPE, in Biography, an exquisite Italian singer, with a contralto voice, born at Milan, and al-
ways mentioned with rapture by some of our friends who heard him at Rome when he was very young; they like-
Of the awkward applauses of the uninstructed rustics, who did not understand the art of applauding, and who disturbed the general harmony by their discordant sounds, Tacitus speaks: (Annal. xvi. 5.), "cum manibus neficiis faticentibus, turbantibus ignoramus."

**APPLE-TREE.** Malus, in Botany, a general name applied to a cultivated orchard-tree, which produces the fruit known by the name of apple. In the fifteen of Limæns, it is conflated as a species of the genus *rinus*, of which there are three: the *wild-apple* or *crab*, which has a very four fruit; the *Virginian wild crab*, which produces a sweet-scented flower; and the *dwarf-apple*, frequently known by the name of *Paradise-apple*. See *Pyrus Malus*.

Trees of this sort are produced in an artificial manner, by means of ingrafting the feions or shoots of such apple-trees as are valuable for their fruit, on stocks that have been raised from the seeds of crabs. Thus a feion of an apple-tree, inserted into a crab-block, occupies the crab-tree from that time to produce *apples* of nearly the same kind and quality with those from which the feion was taken. Mr. Ray, indeed, thinks, that the fruit of these trees always follows the nature of the feions.

In the nurseries, three sorts of blocks are commonly used to graft apples upon: first, *free blocks*, which are raised indifferently from the kernels of all sorts of apples, and which by some are also termed *crab-blocks*, as all those trees which are produced from the seeds before they are grafted, are termed *crabs*, without any distinction. Such blocks should, however, be preferred, as are raised from the kernels of crabs, where they can be procured. Several old writers are of this opinion. Aulenus, who wrote more than an hundred years ago, lays the block which he accounts best for *apple-grafts* is the *crab*, which is better from *sweeter apples* than to graft on, because it usually free from canker, and will become a large tree, and, he conceives, last longer than blocks of *sweeter apples*, and makes fruits more strong and hardy to endure frosts. It is well known, however, that by frequent grafting some sorts of apples upon free blocks, the fruits have been rendered larger, but less firm, and of shorter duration.

The second sort of block is the *Dutch creeper*; these blocks are designed to flint the growth of trees, and keep them within compas for dwarfs or epaphers. The third sort is the *Paradise apple*, which is a very low shrub, consequently only proper for trees which are kept in pots by way of curiosity, as they do not continue long. See *INGRAFTING OF FRUIT TREES*.

Trees of the apple kind are found in general to thrive well when planted on strong deep loamy soils, or such clayey ones as, by having a portion of gravel in their composition, are rendered not retentive of moisure. Mr. Knight, in his treatise on the Culture of the Apple and Pear, remarks, that a preference has been given to soils of opposite kinds, by planters of different ages. Those of the last century uniformly contended, he says, in favour of a light sandy loam, and on that their finest cyder fruits were grown; but at present a soil of a diagnostically opposite quality, a strong red clay, is generally preferred. Much of the soil which is called clay, in the district where he resides, is, however, he observes, properly argillaceous marle; and some of it contains a large portion of calcareous earth, and effervescences strongly with acids. He has found this soil to form the subtilisum of some orchards much celebrated for producing fruit of the first quality. It appears, he thinks, to have the effect of mitigating the barkerbats of rough unripe fruits; and as the trees grow with great luxuriance in it, it is perhaps, of all soils, the best calculated to answer the wishes of the planter; but that the strongest and most highly flavoured

**APP**

miscellaneous, and endure the To be the of which the celebrated Salimbene. His style was naturally pathetic and touching, and his suaveo, consequently extremely admired.

**APPANO, in Geography, a town of Italy in the duchy of Milan, 22 miles N. N. W. from Milan.**

**APPIARIA, in Ancient Geography, a town of Europe, in Lower Asia, on the right bank of the Danube, there called Iiler. It was situated between Durastorius on the call, and Nicopolis ad Ithrum on the west.**

**APPIDEMISCHKAN, in Geography, a town of Prufia, nine miles south-east from Cambinana.**

**APPII Forum, in Ancient Geography, Burgo Lango, a small town of Italy, in Latium, in the country of the Volsci. It was situated upon the Appian way, between Suseia Pometia to the north-west, and Terracina at some distance to the south-east. It is mentioned in the Acts, ch. xxvii. 15, and by Horace in his account of his journey to Brundusium:***

"inde forum Appii Differtium natus, canopibus atque malignis,"

"To Appii thence we flier, a place Stulf'd with rank boatmen, and with vintners bafe."

**FRANCIS.**

On the ruins of this ancient little town is situated an abbey called Fossia Nova.

**APPLANA, in Entomology, a small species of Phalaena, of the Tortrix family, that inhabits Kiel and other parts ofEurope. The wings are depressed, brown, with three white dots in the centre. Gm. Obf. This is the Fabrician character in the species Insectorum, where it is arranged in the section Pyralis t. 2. 288.; and it is also Phalaenæ pentadactyle of Clerk. Icon.**

**APPLAUSE, properly signifies an approbation of something, witnessed by clapping of hands; and in this respect it differs from acclamation, which was articulate, and performed with the voice. The word comes from the verb plaudere, to clap the hands.**

The ancient way of applauding by clapping of hands is scarcely retained any where but in theatres. Among the Romans there were three different species of applause denominated from the different noises made in them, viz. tomus, imbrices, and tefte; the first a confused din, made either by the hands or the mouth; the second and third by beating on a sort of foundling vessels placed in the theatres for this purpose.

Persons were instructed to give applause with skill; and there were even masters who professed to teach the art. The proficients in this way let themselves out for hire to the vain-glorious among the poets, actors, &c. and were properly disposed to support a land applaudee. These they called *ludenii.*

At the end of the play, a loud peal of applause was expected, and even asked of the audience, either by the chorus or the person who spoke last. The formula was, *spectatoris plaudite, or valet & plaudite.*

The *plavers*, or applauders, were divided into *clori,* and disposed in theatres opposite to each other, like the choristers in cathedrals; so that there was a kind of concert of applaudees.

Seneca (Nat. Quafl. ii. 28.) has described the different modes of applauding with the hands: "Averfæ inter fe manum collit, non plaudunt, fed palma cum palmâ collatit, plauum facit, Et plurimum intereft utramque concitatum, et plane et extensa." The people stood up to applaud in the theatres; thus Propertius (iii. 16.);

"Stantiaque in plauum tota theatra juvent."
A

flavoured liquor, which has hitherto been obtained from the apple, is produced by a foil which differs from any of those that have been mentioned—the shallow loam on a lime-lined bank, such as is met with in the forest of Dean.

It is added, that in regard to situation, the apple-tree succeeds best in those which are neither high nor remarkably low. In the former, its blossoms are frequently liable to be injured by cold winds, and in the latter by spring-fruit, particularly when the trees are planted in the lowest part of a confined valley. A south or south-west aspect is generally preferred, on account of the turbulence of the wind, and the coldness of north winds; but orchards succeed well in all and where the violence of the west wind is broken by an intervening rise of ground, a south-west aspect will, he thinks, be found equal to any. Apple-trees are generally the most productive of fruit when they are situated near the fold-yard, and the ground, in consequence, much trod and manured by the cattle in the winter season. The soil in which old apple-trees have grown, is, however, esteemed very unfavourable to young ones.

When from contiguity to the house, an orchard is planted in this kind of ground, the pear and apple should be made to succeed each other, as has been judiciously recommended by the author of the Rural Economy of Gloucestershire. The land intended to be planted with apple-trees should be well prepared the year before, by thoroughly digging or ploughing; and if dung, in the form of compost with mould, be laid on, it will be of great utility. In chafing the trees, such as are but of two years growth from the graft, are, in general, to be preferred, and they should have strong straight stems. When the trees are planted, they should also be felled, to prevent their being shaken by the wind. For the manner of planting apple-trees, &c. see Orchard.

In directing the choice of fruit-trees, for particular situations, great attention should be paid to select such as are proper for the peculiar views of the planter, and sufficiently early to ripen well in them. The apple-tree being naturally very full of branches, frequently requires the operation of pruning; and when properly executed, great advantages will be found to arise from it. Mr. Knight thinks, in this business, the pruner should confine himself almost entirely to the extremities of the bearing branch, which are always too full of wood, and leave the internal part of the trees nearly as he finds it. Large branches should rarely or never be amputated.

In the garden culture of the apple, where the trees are retained as dwarfs or espaliers, the more vigorously growing kinds are often rendered unproductive by the excessive, though necessary, use of the pruning knife. The above writer has always succeeded, he says, in making trees of this kind fruitful, by digging them up, and replacing them with some fresh earth in the same situation. The too great luxuriance of growth is, he thinks, thus checked, and a disposition to bear in consequence brought on. See Pruning of Fruit-trees.

Apple-trees sometimes begin bearing at the age of two or three years; but when they are six or seven, they are for the most part found to produce the most abundantly.

The blossoms of apple-trees are liable to be injured or destroyed by various causes; as severe cold, a hazy state of the atmosphere, frosts, and insects of various kinds. And Mr. Knight has remarked, that they also fail frequently from want of impregnation, when the weather is unusually hot and dry, or when cold winds prevail, as he has often observed the farina to wither and die on the anthera in such seasons. In these cases, those trees have been found to escape the heat, that were moderately full of wood, and consequently capable of affording the blossoms the most protection.

Apple, a well-known orchard fruit, cultivated for the purposes of the table as well as for the liquor which is prepared from its juice. The varieties of this valuable fruit are extremely numerous. Mr. Forysth, in his treatise on the Culture and Management of Fruit-trees, mentions eight different sorts, as having been introduced from France; among which the French rennet, the rennet grise, and the white apple, are most esteemed in this country, and about thirty-six sorts of our own growth, which may be considered as valuable. But the varieties of this fruit will be treated of more fully under the article Pyrus Malus.

In respect to the method of preserving apples for use during the winter season, it has been recommended to let them remain upon the trees until perfectly ripe, and then to gather them by the hand in dry weather, laying them in heaps for a few weeks, in order that they may undergo a slight degree of sweating. They should then be carefully looked over, and all such as are in any way soft or decayed, be removed, the sound fruit being wiped dry, and packed in any kind of large jars that have been previously made clean and dry; the mouths or openings being closely secured, in order to exclude the air as much as possible from them. In this way apples are said to keep found a great length of time, the skin or pulp remaining perfectly firm and plump, which is not the case when they are constantly exposed to the action of the open air. But they may be kept perfectly well without this trouble, by being closely packed in large hamper, baskets, or bins, and placed in close dry situations.

The sort of apples that are in general held in most esteem for the table are the following, which stand in the order of their ripening: the white jucating, the margaret apple, the summer pearmain, the summer greening, the embroidered apple, the golden rennet, the summer white calville, the summer red calville, the flaker pippin, the aromatic pippin, the la rennette grise, the la haute bonté, the royal ruffing, the wheeler's ruffet, the sharp's ruffet, the pomme apple, the golden pippin, the noaprel, and l'api or pomme d'api.

But for kitchen use; the codling, the summer marrigold, the summer red pearmain, the Holland pippin, the Kentish pippin, the compund, the Loam's pearmain, the French rennet, the French pippin, the royal ruffet, the monstrous rennet, the winter pearmain, the pomme violeta, the Spencer's pippin, the france pippin, and the eaken pippin.

And for the purposes of cider; the flate apple, the bagnio crab, the golden pippin, the old red'srake, and the woodcock, were the favourite old cider fruits; but most of them are now, according to Mr. Marshall, on the decline. The madd and the coccage are, however, still in high estimation, especially the latter. Mr. Crocker, in his treatise on the Art of Making Cyder, observes, that in the districts of Hereford and Worceter, the following are considered as the best liquor fruits; the Bredin apple, Captain Nurse's kernel, Elton's yellow, Normandy apple, and the yellow or forse flyre. And that in the county of Somerset; the fersey, the white sour, the marrig, wallis apple, barn's-door crab, red'srake, Du-ann, Jack Every, coccage, Charl's prims, Buckland, Pit crab, Slater's pearmain, Slater's No. 19, Slater's No. 20, Slater's No. 21, Caffe pippin, faw-pit, and the pomme anis, are supposed most valuable. But that in Devonshire, the most esteemed fruits are; the Scroton red'srake, the fawet broady, the lemon bitter fawet, jeofy, Orcheton pippin, wine-apple, marred gold spic-apple, Ludbrook red'srake, green Cornish, the butter-box, red Cornish, broad nosed pippin, eac'
The bell and molt proper sorts of apples to be cultivated in a small garden are, according to Mr. Forth, the jenning, golden pippin, nonpareil, Ribstone pippin, nonpareil, Queen's apple, jysbaie, golden rennet, aromatic pippin, grey hailstone, scarlet pearmain, lemon pippin, pomme gre, and the French crab, with rufflings and roads for the purpose of baking.

It has been ingeniously suggested by Mr. Knight, in his treatise on the Apple and Pear, that the juice of these fruits might be used with great advantage in long voyages. He has frequently, he says, reduced it by boiling, to the confidence of a weak jelly; and that in this state it has remained several years without the slightest apparent change, though it has been intentionally exposed to much variation of temperature. A large quantity of the infusigated juice would, he further observes, occupy but a very small space; and the addition of a few pounds of it to a hoghead of water would probably, at any time, form a liquor a good deal similar to cyder or perry: it might also, he thinks, be used to supply the place of vinegar and orange, and might be obtained at a much lower price.

It has been observed by Dr. Grew, in his Anatomy of Vegetables, that the apple is formed of four distinct parts, consisting of the cuticle or pill, the parenchyma, the branchery, and the core; that the pill or skin is only a dilatation of the outermost skin or rind of the bark of the branch on which it grew; and that the parenchyma or pulp, though tender and delicious to the palate, is only a dilatation of the alburnum, or inner part of the bark of the same part. This is evident, he thinks, not only from the visible continuation of the bark, from the one through the pedicle or stalk to the other; but also from the structure common to both. And that the branchery, or vellums, are only ramifications of the woody part of the branch divided through all the parts of the parenchyma, the greater branches being made to communicate with each other by the medium of the smaller ones; and that the core proceeds originally, he supposes, from the pith of the branch, the sap of which finding room enough in the parenchyma, to diffuse itself, quits the pith, which, in consequence, hardens into core.

Apple is also a name given to divers fruits, bearing some resemblance in figure, rotundity, and the like, to the orchard apple.

Apple, Adam's. See Citrus, and Pomen Adami.

Apple, Alligator. See Annona.

Apple, bitter, a name sometimes given to the fruit of the Colocynthis. See Cucumis.

Apple, blad. See Cactus.

Apple, cudifid. See Annona.

Apple, dwarf. See Dwarfr-trees.

Apple-flies, in Natural History, the name given by authors to a small green fly found sometimes within an apple, and hatched of a worm or maggot, very frequently found infesting that fruit.

Apple, bee. See Solanum.

Apple, man. See Solanum.

Apple, male ballyum. See Monordica.

Apple, marsh, so called by Dr. Grew on account of its figure, as being round, except on one side, where it falls in, and has a flank like a young apple. Mus. Reg. Soc. P. ii. 3, cap. 2.

Among the ancient ornaments of churches we read of golden apples, pomae aurea; by which it should seem, we are to understand the globular parts of candlesticks. Du-Cange.
APP

and motion is determined by successive application of any thing to different parts of space.

Application is sometimes also used, both in Arithmetic and Geometry, for the operation of division, or for that which corresponds to it in Geometry. Thus \( \frac{a}{b} \) applied to, or divided by \( \frac{c}{d} \), i.e. \( \frac{a}{b} \cdot \frac{c}{d} \), gives \( \frac{ac}{bd} \). And a rectangle \( ab \) applied to a line \( e \), gives the fourth proportional \( ab \), or another line, 

\[ \frac{a}{b} = \frac{ac}{de} \]

Application, in Geometry, denotes the act of placing one figure upon another in order to determine their equality or inequality. In this way Euclid, and other geometers, have demonstrated some of the primary and fundamental propositions in elementary Geometry. Thus it is proved, that two triangles, having two sides of the one equal respectively to two sides of the other, and the two included angles equal, are equal in all respects; and two triangles having one side and the adjacent angles of the one respectively equal to one side, and the adjacent angles of the other, are also in the same mode of application shown to be equal. Thus also it is demonstrated, that a diameter divides the circle into two equal parts, and that the diagonal divides a square or parallelogram into two equal parts. The term is also used to signify the adaptation of one quantity to another, in order to their being compared; the areas of which are the same, but their figures different. Thus Euclid shows how, on a right line given, to apply a parallelogram that shall be equal to a right-lined figure given. See also I. vi. pr. 28. &c.

Application of one science to another signifies the use that is made of the principles of the one for augmenting and perfecting the other. As there is a connection between all the arts and sciences, one of them may be made subservient to the illumination and improvement of the other: and to this purpose algebra has been applied to geometry, and geometry to algebra, and both to mechanics, astronomy, geography, navigation, &c.

Application of Algebra, or Analysis, to Geometry. After the discovery of algebra and analysis, it was natural to apply these sciences to geometry, since lines, surfaces and solids, which are the objects of geometry, are commensurable, and capable of being compared with one another, and consequent upon their relations and proportions exhibited. The application of algebra to geometry is of two kinds: that which regards the plane or common geometry, and that which respects the higher geometry, or the nature of curve lines. The first of these is concerned in the algebraical solution of geometrical problems, and the investigations of theorems in geometrical figures, by means of algebraical investigations or demonstrations. Influences of this kind of application occur in the works of the most early writers in algebra, as Diophantus, Lucas de Burgo, Cardan, Tartalea, &c. and may be found in those of authors of modern date even to our own times. Some of the best precedents and exercises relating to this kind of application may be seen in Sir Isaac Newton's "Universal Arithmetic," and in Mr. Thomas Simpson's "Algebra" and "Select Exercises." This method of resolving geometrical problems is, in many cases, more direct and easy, than that of the geometrical analysis; but the latter method by synthesis, or construction and demonstration, is the most elegant. The algebraical solution succeeds best in such problems as respect the sides and other lines in geometrical figures; and those geometrical problems in which angles are concerned are best resolved by the geometrical analysis. See other remarks on this method of solution in Newton's treatise above mentioned. The solution of problems in this way depends upon a previous acquaintance with the method of expressing geometrical magnitudes, as well as their mutual positions and relations, by algebraical notation; e.g. a line, whether known or unknown, is represented by a single letter; a rectangle may be denoted by the product of the two letters expressing its sides; and a rectangular parallelepiped by the product of three letters, two of which represent its rectangular base, and the third its height. The opposite position of straight lines may be expressed by the signs + and −; and segments of lines may be denoted by letters with these signs prefixed, as circumstances require. In order to express the positions of geometrical figures, which it will be more difficult to do, because they are infinitely various, it will be necessary to have recourse to proportions or equations, which express certain relations that depend upon their positions: and the positions of figures may again be deduced from the equations that express the relations of their parts. Thus, an angle may be expressed by the ratio of its line to the radius; a right angle in a triangle, by making the sum of the squares of the two sides equal to the square of the hypotenuse; the position of points may be ascertained by perpendiculars let fall from them on lines given in position; the position of lines by the angles which they make with given lines, or by perpendiculars drawn to them from given points; the similarity of triangles by an equation deduced from the proportionality of their sides, &c. But it is not possible to give general rules for all the particular cases that occur. As the geometrical proposition must first be expressed in the algebraic manner, the result, when the operation is completed, must be expressed geometrically. All theorems, in which the proportions of magnitudes only are employed, and all those that express the relations of the segments of a straight line, of their squares, rectangles, cubes, and parallelepipeds, are easily demonstrated in the algebraical method. From the first proposition of the second book of Euclid, the nine following may be derived with ease in this manner; and they may be considered as appropriate examples of this most obvious application of algebra to geometry. Moreover, the algebraical demonstrations of the 12th and 13th propositions of the second book require only the 47th of the first book; and the 35th and 36th of the third book require only the third of the third book and 47th of the first.

In the solution of problems, the following general observations will be of use. When any geometrical problem is proposed for algebraic resolution, you are, in the first place, to describe a figure that shall represent the parts or conditions of the problem, and regard that figure as the true one; then, having considered the nature of the problem, you are to prepare the figure for a solution, if it be necessary, by producing and drawing such lines, as appear most conducive to that purpose. When this has been done, let the unknown line or lines that seem to be the most easily found, and any of the known ones that are requisite, be denoted by proper symbols; then proceed to the operation, by observing the relation which the several parts have to each other. As no general rule can be given for the drawing of lines and selecting the most proper quantities to subsist for them, so as always to bring out the most simple conclusions, because different problems require different methods of solution; it will be best, in order to gain experience in this matter, to attempt the solution of the same problem by several ways, and then to apply those which succeed best to other cases of the same kind, when they afterwards occur. The following general directions will be of use.

1. In preparing the figure, by drawing lines, let them be either parallel or perpendicular to other lines in the figure,
APP

and this, multiplied by \(x\), gives \(ax - ax' = ee = \text{the area of the rectangle; whence we have} \ \frac{a^2}{\sqrt{b^2 - 4a}} = \frac{x}{\sqrt{b^2 - 4a}} \),

Then, \(BP\) will be from \(BC\), and by its nature being from the base of the figure, the perpendicular is easily found by common arithmetic; whereas if the perpendicular were first sought, both the segments would be found quantities, and the final equation a quadratic one.

3. Where in any problem, there are two lines or quantities alike related to other parts of the figure or problem, the best way is to make use of neither of them, but to substitute for their sum, their rectangle, or the sum of their alternate quotients, or for some line or lines in the figure, to which they have both the same relation.

4. If the area, or the perimeter of a figure be given, or such parts of it as have but a remote relation to the parts required, it will sometimes be of use to assume another figure similar to the proposed one, of which one side is unity, or some other known quantity; from whence the other parts of this figure, by the known proportions of the homologous sides, or parts, may be found, and an equation may be formed.

Prob. I. "The base \(a\), and the sum of the hypothenuse and perpendicular \(b\), of a right-angled triangle \(ABC\) (Plate II. Geometry, fig. 28.) being given, to find the perpendicular.

Let the perpendicular \(BC\) be denoted by \(x\); then the hypothenuse will be expressed by \(a - x\); but (by Eqv. 47. t.) \(AB' + BC = AC\); i.e., \(b + x = a - 2ax + x^2\); whence \(x = a - b + b\) is the perpendicular required.

Prob. II. "The diagonal, and the perimeter of a rectangular triangle \(ABC\) (fig. 29.) being given, to find the sides." Put the diagonal \(BD = a\), half the perimeter, \(DA + AB = b\), and \(AB = x\); then will \(AD = b - x\); and therefore, \(AB + AD\) being \(BD\), we have \(x + 2b = 2bx + x^2 = a\); which solved gives \(x = \sqrt{2a^2 - b^2 + b}\).

Prob. III. "The area of a right-angled triangle \(ABC\) (fig. 30.), and the sides of a rectangle \(EBDF\) inferred therein, being given, to find the sides of the triangle." Put \(DF = a\), \(DE = b\), \(BC = x\), and the given area \(ABC = d\); then, by similar triangles, we shall have \(x - b\) (CP): \(a\) (DF) :: \(x\) (BC): \(AB = ax\). Consequenty \(ax = \frac{x}{\cdot x} = \frac{d}{a}\);

and therefore \(x^2 = 2dx - 2bd\), or \(x^2 = 2dx = -2bd\); which, solved, gives \(x = \sqrt{d^2 + 2bd - 2b^2}\); whence \(AB = \sqrt{\frac{a}{a} \cdot a - \frac{a}{a}}\).

AC will likewise be known.

Prob. IV. "Having the area of a rectangle \(DEFG\) (fig. 31.) inferred in a given triangle \(ABC\), to determine the sides of the rectangle." Let \(CI\) be perpendicular to \(AB\), cutting \(DG\) in \(H\); and let \(CI = a\), \(AB = b\), \(DG = x\), and the given area \(= e\); then it will be, as \(b: x:: a: ax = CH\); which, taken from \(CI\), leaves \(a - ax = IH\); and this, multiplied by \(x\), gives \(ax - ax' = ee = \text{the area of the triangle; whence we have} \ \frac{a}{\sqrt{b^2 - 4a}} = \frac{x}{\sqrt{b^2 - 4a}} \),

Hence it appears that \(c\), or its equal \(\sqrt{a + b} + c\), cannot be less than \(4\ a\), and therefore \(b\) not less than \(8\ a\). for the condition \(\frac{a}{4} cc - ac\) under the radical sign, would be negative, and its square root impossible; and all squares, whether their roots be positive or negative, are positive; so that there cannot arise any such quantities as negative squares, unless the conditions of the problem under consideration are inconsistent and impossible. See Simpson's Algebra, sect. 18, parlam.

The second branch of the application of algebra to geometry, or that which respects the higher geometry, or the nature and properties of curve lines, was introduced by Des Cartes. In this department the nature of the curve is expressed or denoted by an algebraic equation, which is thus formed. A line is conceived to be drawn, as the diameter or some other principal line of the curve, and upon this line, at any indefinite points, are erected perpendiculants, which are called ordinates, and the parts of the first line cut off by them are called abscesses. Calling the abscesses \(x\), and its corresponding ordinate \(y\), the known nature of the curve, or the mutual relations of the curve lines in it, will afford an equation involving in it \(x\) and \(y\), and other given quantities. And as \(x\) and \(y\) are common to every point in the primary line, the equation, derived in this manner, will belong to every position or value of the abscesses and ordinates, and may be properly considered as expressing the nature of the curve in all points of it; and is usually called the equation of the curve.
Hence every particular curve will appear to have an appropriate equation, differing from that of every other; either as to the number of the terms, the powers of the unknown quantities \(x\) and \(y\), or the signs of the coefficients of the terms of the equation. Thus the circle, the ellipse, the parabola, the hyperbola, and other curves, have their peculiar and distinguishing equations. The geometry of curve lines has been much extended and improved by means of these algebraic equations; for thus, all the properties of such equations, and their roots are transferred to the curve lines whose abscissae and ordinates have similar properties, and consequently the known properties of curves are transferred to the equations that represent them. See CURVES.

**APPLICATION of Geometry to Algebra.** The higher geometry, or that of curve lines, is usefully applied to the purpose of investigating the nature and roots of equations; and also the values of those roots by the construction of such lines. Besides, common geometry is also applicable to algebra in some cases with advantage. A familiar instance will be sufficient to evince the truth of this observation. If it were required to square the binomial \(a + b\); a square (Plate II. Geometry, fig. 34.) may be formed, whose side is equal to \(a + b\), and then drawing two lines parallel to the sides from the points of division, it will immediately appear that the square of the compound quantity \(a + b\) is equal to the squares of both the parts, together with two rectangles under the two parts, i.e., \(a + b = (a + b)^2\), which is also deduced from a geometrical construction. Hence it also appears, that if \(a = b\), the square on the whole line will be equal to four times the square upon the half of that line. In this manner the Arabians, and the early European writers on algebra, deduced and demonstrated the common rule for resolving compound quadratic equations. And by a similar method, Tartalea and Cardan derived and demonstrated all the rules for the resolution of cubic equations, using cubes and parallelepipeds instead of squares and rectangles.

**APPLICATION of Algebra and Geometry to Mechanics.** This is founded on the same principles as the application of algebra to geometry. It principally consists in representing by equations the curves described by bodies in motion, and in determining the equation between the spaces which the bodies describe, when actuated by any forces; and the times employed in describing those spaces, &c. The article ACCELERATION exhibits an instance of this kind of application; as the altitudes of triangles represent the times, the bases, the velocities, and the areas, the spaces described by bodies in accelerated motion. In short, as velocities, times, forces, spaces, &c., may be represented by lines and geometrical figures; and as these are capable of algebraic notations and operations, it is evident how the principles and properties of both algebra and geometry may be applied to mechanics, and added to all the other branches of the mixed mathematics.

**APPLICATION of Mechanics to Geometry,** consists chiefly in the use that is sometimes made of the centre of gravity of figures for determining the contents of solids described by those figures. See CENTROBARY Method.

**APPLICATION of Geometry and Astronomy to Geography,** principally consists in the following articles; viz. in determining by geometrical and astronomical operations, the figure of the terrestrial globe; in finding the positions of places by their observed latitude and longitude; and in determining, by geometrical operations, the positions of places that are not very remote from one another. Astronomy and geography are also of great use in navigation.

**APPLICATION of Geometry and Algebra to Physics, or Natural Philosophy.** For this application we are indebted to Sir Isaac Newton, whose philosophy may therefore be called the geometrical or mathematical philosophy; and upon this application are founded all the phystico-mathematical sciences. Hence a single observation or experiment will often produce a whole science. Having ascertained by experience, that the rays of light, by reflection, make the angle of incidence equal to that of reflection, we hence deduce the whole science of Catoptrics, which thus becomes purely geometrical, since it is reduced to the comparison of angles and lines given in position. The same is also the case in many other sciences.

**APPLICATION of one thing to another,** is employed generally in subjects of art or science, to denote the use that is made of the former for understanding or perfecting the latter; thus the application of the cycloid to pendulums signifies the use that is made of the cycloid for improving the doctrine and use of pendulums. See CYCLOID and PENDULUM.

**APPLICATION is also used, in subjects of literature, &c., for the adjusting, accommodating, or making a thing quadrate to another. Thus we say, the application of a fable, &c.**

**APPLICATION, in Theology, is particularly used, by some divines, for the act whereby our Saviour transfers, or makes over to us, what he had earned or purchased by his holy life and death. Accordingly it is by this application of the merits of Christ, that we are to be justified and entitled to grace and glory. The sacraments are the ordinary means, or instruments, whereby this application is effected.**

**APPLY, among Mathematicians, sometimes signifies to transfer a line given into a circle most commonly, or into any other figure; so that its ends may be in the perimeter of the figure.**

**APPLY denotes also as much as divide, especially among Latin writers; who as they say duce AB in CB, draw AB into CB, when they would have AB multiplied by CB; or rather when they would have a right-angled parallelogram made of those lines; so they say, apply CB ad AB, apply AB to CB, when they would have CB divided by AB; which is thus expressed as \(\frac{CB}{AB}\).** Or, if it is used when the area of a figure, and one dimension are given, and the other is to be found: as the area \(ab\) applied to the line \(c\), is \(\frac{ab}{c}\).

**APPOGGIATURA,** in Music, is a small additional note of embellishment added to a melody, which is not supposed to occupy any portion of the time, a bar appearing complete without it, but the time which is given to this little note, is taken out of the great note which it precedes. As to the length of these diminutive notes, the best rule that can be given for them is, that in common time they should be half the length of the great note, for which only the other half remains; and in triple time they rob the subsequent note of two-thirds of its length. So that the appoggiatura to a minim is a minim, to a minim a crotchet, to a crotchet a quaver, &c.
It has been well observed by M. Framery, in the Encyclopædic Methodique, that the appoggiatura gives a tender expression to the melody, that would injure marches and movements of spirit, which require energy and strong accents.

Fragment of recitative, from Sacchini's opera of Crefo.

```
Eccomi a piedi tuoi; supplice io chiedo pietà da te, ma non rispondi?
```

```
al-trove perché volgi il sembiante? Ah ti; costanza non hai di rimar-mi in quello
```

This piece of recitative should be sung as if it were written in the following manner:

```
Eccomi à piedi tuoi; supplice io chiedo pietà da te, ma non rispondi?
```

```
al-trove perché volgi il sembiante? Ah ti; costanza non hai di rimar-mi in quello
```

M. Framery says, that the appoggiatura is the only embellishment in recitative. But Pacchierotti and Marchetti (perhaps since his article was written) have introduced graces in recitative, particularly before a close, which all the Italian fingers and their imitators, who can execute them, have followed. See Recitative.

The term appoggiatura is derived from appoggiare, to lean on. And as these little notes generally occur on the accented parts of a bar, more force is given to them by good performers, than to the principal note which they precede. In pathetic strains, the soul of the melody may be said to reside in the appoggiaturas.

APPOINTEE, a name formerly given to a foot soldier in the French army, &c. who for his long service and bravery receives pay above private sentinels.

Till the year 1670, they had also captains and lieutenants under the appellation of appointees, who, without refunding in the regiment, received their pay. See Ansessades.

APPOINTEE, in Heraldry, is when two or more things are placed touching each other at the points or ends.

APPOINTMENT, a pension or salary given by great lords and princes to persons of worth and parts, in order to retain them in their service. This term was chiefly used among the French in the time of their monarchy.

Appointments differ from wages, in that the latter are fixed and ordinary, being paid by the ordinary treasurers; whereas appointments are annual gratifications granted by brevet for a time uncertain, and are paid out of the privy purse.

APPOINTMENT, in Law, is used in contradistinction to a bequest. Thus, by construction of the statute 43 Eliz. c. 4, it is held, that a devise to a corporation for a charitable use is valid, as operating in the nature of an appointment rather than of a bequest. It is also held, that the statute of Elizabeth, which favours appointments to charities, superseded and repealed all former statutes, and supplies all defects of assurances; and therefore, not only a devise to a corporation, but a devise by a copyhold tenant without surrendering to the use of his will, and a devise (nay even a settlement) by tenant in tail without either fine or recovery, if made
made to a charitable use, are good by way of appointment. Blackl. Com. b. ii. vol. ii. p. 376.

APPOMATOX, in Geography, is the name of a southern branch of James river in Virginia.

APPORTIONMENT, Apportionamentum, in Law, a dividing of a rent into two or more parts, or portions, according as the land whence it issues is divided among two, or more proprietors.

Thus if a man, having a rent-service issuing out of land, purchase a part of the land; the rent shall be apportioned, according to the value of the land.—So if a man let lands for years, reserving rent, and a stranger afterward recover part of the land; the rent shall be apportioned.

But a rent-charge cannot be apportioned, nor things that are entire; as if one hold land by service, to pay to his lord yearly at such a feall a horse, &c.; there, if the lord purchase a part of the land, this service is totally extinct; because such things cannot be divided without hurt to the whole. But if part of the land, out of which a rent-charge issues, descends to the grantee of the rent, this shall be apportioned.

On partition of lands out of which a rent is issuing, the rent shall be apportioned. The statute 12 Geo. ii. c. 19. § 15. has in certain cases altered the law as to apportioning of rents in point of time; it being thereby enacted, "that if any tenant for life shall happen to die before, or on the day on which any rent was reserved or made payable, upon any demise or lease of any lands, tenements, or hereditaments, which determined on the death of any such tenant for life, the executors or administrators of such tenant for life, shall and may, in an action on the cap, recover of and from such under-tenant or under-tenants of such lands, &c. if such tenant for life die on the day on which the same was made payable, the whole; or if before such day, then a proportion of such rent, according to the time such tenant for life lived, of the last year, or quarter of a year, or other time in which the said rent was owing due as aforesaid, making all just allowances, or a proportionate part thereof respectively." Before this statute, the rent, by the death of a tenant for life, was lost; but the legislature having thus interposed in favour of tenants for life, the provisions of the statute have, by an equitable construction, been extended to tenants in tail. However, the dividends of money directed to be laid out in lands, and in the mean time to be invested in government securities, and the interest and dividends to be applied as the rents and profits would in case it were laid out in land, were held not to be apportionable, though tenant for life died in the middle of the half year. But where the money is laid out in mortgage, till a purchase could be made, the interest is apportionable. This distinction, however, may be referred to interest on a mortgage, being in fact due from day to day, and so not properly an apportionment; whereas the dividends accruing from the public funds are made payable on certain days, and therefore not apportionable. Upon this principle the Master of the Rolls decreed an apportionment of maintenance-money, it being for the daily subsistence of the infant; and the principle extending to a separate maintenance for a femce covert, such apportionment has, in such cases, been allowed at law.

A man purchases part of the land where he hath common appurtenant; the common shall be appurteoned: of common appurtenant it is otherwise; and if by the act of the party, the common is extinct. Common appurtenant and appurtenant may be apportioned on alienation of part of the land to which it is appurtenant or appurtenant. Danv. Abr. 505. 507. Co. Litt. 144. 148. 149. Amb. Rep. 502. 2 P. Wms. 176. 501. 8 Rep. 79. Wood's Intit. 199.

APPOSAL of scriti, is the charging of them with money received on their account in the exchequer, 22 and 23 Car. II. c. 22.

APROSER signifies an examiner. In the court of exchequer, there is an officer called the foreign aproser.

In the office of confirmation, in the first liturgy of Edw. VI. the rubric directs the bishop, or such as he shall appoint, to appose a child; and a bishop's examining chaplain was anciently called his aproser.

APPPOSITION, from ad, to, and pono, I put, the act of putting or applying one thing to another.

APPPOSITION is used in Physics, in speaking of bodies which derive their growth from the adjunction or union of neighboring bodies.

APPOTION, in Grammar, denotes the putting two or more substantives together in the same case, and without any copulative conjunction between them.

Thus, Flanders, blustering theatre, horrible scene of war; love, enemy of human quiet; peace, parent of riches, source of faction, &c.

APPRaiser, from ad, to, and pretium, value, one who rates, or sets a value upon goods, &c. He must be a skilful and honest person. It is not a business of itself, but is practiced by brokers of homchold furniture, to which fet of men the word is chiefly applied. Yet upholsterers and other brokers are employed, or even any person or persons who are supposed to be skilled in the commodities to be appraised or valued. They are employed in cafes of death, executions brought in upon goods, or of flock to be turned over from one person to another, or divided between copartners; and are called sworn appraisers, from their taking an oath to do justice between party and party. If they value the goods too high, they shall be obliged to take them at the price appraised, statute 1 Edw. I.

They sometimes appraise on behalf of both sides, each party agreeing to have the same appraiser or appraisers; sometimes in opposition, each party chusing one or more of a side; and sometimes by commiffion or deputation of trustees, mailers in chancery, &c.

APPReciation, in Musick, is the judging accurately of things within the power of our senses and perception. Our organ of hearing is unable to judge of sounds beyond a certain degree of gravity and acuteness. The octave below double C, the lowest note of the additional keys in the bafe of piano-fortes, is extremely difficult to tune; and the additional high notes seem more the production of wood than wire. However, the great mathematician, Euler, gives the extent of eight octaves to human perception; from the highest appreciable found to the lowest; but, says Roufleau, these extremes of the scale not being very agreeable, we seldom, in practice, exceed five octaves, which the common compass of keycl-instruments furnishes. There is likewise a degree of force or loudness, which we cannot appreciate. The sound of a great bell, for instance, gives no distinct and certain tone, but a confusion of harmonies, which we cannot distinguish in the bellrey, from the fundamental. We must diminish the force by distance, ere we are sure what the real sound is. It is the same with a wind instrument overblown, and a voice that is forced beyond its natural power; so that those who try to sing loud, with a feeble voice, are always out of tune. With respect to noise, we cannot reduce it to any fixed-tone; and it is that which constitutes the difference between found and noife. See Bruit.

The abbé Feyer, taking up the subject, says, "Euler probably determined the compass of appreciable sounds, from
from the following circumstances: The largest pipe in a 27
feet organ, is an octave below the bariton, or double-bass
flop, and two octaves below double C in the top of a
organ. Now from the lowest C to the highest, on a
pan-flute or harp kind, there is an interval of four
octaves; and if we add two octaves to the bottom, and
two to the top, for the low and high fluts of an organ, we
shall have the eight octaves in question. In order to com-
plete the demonstration, we must have found by ex-er-
iment, that a pipe less than two inches will not speak: for
the most acute C in the 17th has only that length; but
though birds, and the ferruccio or bird-pipe, do produce
more acute sounds, as we are unable to find their union,
we know not what they are.

APPREHENSION, in Logic, denotes the simple at-
tention of the mind to an object presented either to our
sense, or our imagination, without passing a judgment,
or making any inference.

The term literally denotes the action of the hand, where-
by it takes hold of, and grasps any thing: being formed of
ad, and, prehend, I take.

It is by that operation of the understanding, which is
called simple apprehension, that we acquire those notions or
ideas, which are the materials of all our knowledge. Ac-
cording to Dr. Reid, it is synonymous with conception;
and like other simple operations of the mind, it cannot be
logically defined. For his account of this operation of the
mind, see CONCEPTION.

APPREHENSION is likewise used to express an inadequate
and imperfect idea; and thus it is applied to our knowledge
of God, in contradistinction to comprehension.

APPREHENSION, in Law, signifies the feizing a criminal,
in order to bring him to justice. See AREST.

APPRENDRE, in our Ancient Law-Books, a fee or
profit to be taken or received. Statute 2 & 3 Edw. VI.
c. 8.

APPRENTICE, from apprendre, to learn. One who is
bound by covenant to serve a tradesman or artificer a certain
time, usually seven years, upon condition of the master's in-
structing him in his art or mystery.

Apprentices may likewise be bound to husbandmen, or
even to gentle men of fortune and clergymen; who, as
well as tradesmen, are compellable to take the children of
the poor under a penalty of 10s. (Stat. 8 & 9 Will. III.
c. 30. § 5.); and the church-wardens and overseers, with
the consent of two justices, may bind them till the age of twenty-
one years. Stat. 43 Eliz. c. 2. 18 Geo. III. c. 47. And
by statute 5 Eliz. c. 4. § 15, the justices may compel cer-
tain persons under age to be bound as apprentices, and on
refusal may commit them.

Apprentices may be discharged on reasonable cause, either
at their own request or that of their masters, at the quarter
fissions, or by one justice, with appeal to the seisons
(5 Eliz. c. 4.), who may, by the equity of the statute, if
they think it reasonable, direct restitution of a rateable share
of the money given with the apprentice; and parson-appren-
tices may be discharged in the same manner, by two jus-
tices, 20 Geo. II. c. 19. But if any, whose premium has
been less than ten pounds, run away from their masters,
they are compellable to serve out the time of absence, or
give satisfaction for it, at any period within seven years after
expiration of the original contract, 6 Geo. III. c. 26. Ap-
prentices gain a remission in that parish where they last
served forty days, 11 & 12 Car. II. c. 12. And by the
5th of Elizabeth, c. 4. they have an exclusive right to ex-
ercise the trade in which they have been instructed, in any
part of England. However, the resolutions of the courts
have in general rather confined than extended the restrictions
of this statute.

No trades are held to be within the statute, but such as
were in being at the making of it. For, trading in a coun-
try village, apprenticeships are not requisite; and following
the trade seven years, without any actual prosecution (either
as a master or a servant), is sufficient without an actual ap-
prenticeship. See Blackste. Com. vol. i. p. 426, &c.

By the common laws, infants, or persons under the age
of 21 years, cannot bind themselves apprentices, in such a
manner as to enable their masters to an action of covenant,
or any other action against them for departing from their service,
or any breach of their indentures; which makes it nec-

cesseiy, according to the usual practice, to gain their
friends to be bound for the faithful discharge of their
offices, according to the terms agreed on. If an apprentice
misbehaves himself, the master may correct him in his ser-
vice, or complain to a justice of peace, to have him punished
according to the statute 5 Eliz. c. 4. If any one enters
an apprentice from his master's service, or harbours him
after notice, the master may maintain a special action on the
cause against the person so doing. By the custom of London,
an infant unmarried, and above the age of fourteen, may
bind himself apprentice to a freeman of London, by inden-
ture with proper covenants, which covenants, by the said
custom, shall be as binding as if he were of full age. By
the 5th Eliz. c. 4. § 25, an apprentice must be bound by
deed indented; and this must be complied with for all
purposes except for obtaining a settlement. Indentures
must also be enrolled in all towns corporate, 5 Eliz. c. 5.
and 5 Geo. II. c. 46; and in London, by the custom, in
the Chamberlain's office there. In London, if the inhabi-
tants be not enrolled before the Chamberlain within a year,
upon a petition to the Mayor and Aldermen, &c. a firte
facias shall issue to the master, to shew cause why not en-
rolled; and if it was through the master's default, the
apprentice may sue out his indentures and be discharged:
otherwise, if through the fault of the apprentice, as if he
would not come to present himself before the Chamberlain,
&c. if it cannot be enrolled unless the apprentice be in court
and acknowledge it. Indentures are likewise to be stamped,
and are chargeable with several duties by act of parliament.

With regard to the assigning of apprentices, it hath
been held that an apprentice is not assignable. He can-
not be bound nor discharged without deed. But though
an apprentice is not assignable, yet such assignment amounts
to a contract between the two masters, that the child
should serve the latter. By the custom of the city of
London, an apprentice may be turned over from one
master to another; and if the master refuse to make him
free at the end of the term, the Chamberlain may
make him free; but, in other corporations, there must be a
mandamus to the mayor, &c. to make him free in such
case. It seems agreed, that if a man be bound to in-
struct an apprentice in a trade for seven years, and the
master dies, the condition is dispensed with, being a thing
personal; but if he be further bound to find him meat,
drink, clothing, and other necessaries; here the death of
the master doth not dispense with the condition, but his
executors shall be bound to perform it as far as they
have affots. But if a person is bound apprentice by a judge
of the peace, and the master dies before the expiration of
the term, the justices have no power to oblige his executors,
by their order, to receive such apprentice and maintain him.
It is said, however, that the executor or administrator may
bind him to another master for the remaining part of his
life. In this case of the master's dying, it is said that by
the
the custom of London, the executor must put the apprentice to another master of the same trade. By the custom of the city of London, a freeman may turn away his apprentice for gaming; though, if a master turn away an apprentice on account of negligence, &c. equity may decree him to refund part of the money given with him. Jacob's Law Dict., by Tomlin, Art. Apprentice.

In France, the sons of tradesmen, living in their fathers' houses till seventeen years of age, were reputed to have served an apprenticeship. In that country the times of serving are different in the different professions, from three years to eight. After serving out an apprenticeship, the person becomes what they call an aspirant, or candidate for mastership, and is to be examined by proper officers as to his skill and proficiency, and also to exhibit a chef d'œuvre or master-piece in the art he has been bred to, before he be suffered to set up for himself. And the custom of France, in regard to apprentices, is not unworthy the imitation of other nations.

Anciently, benchers in the inns of court were called apprentices of the laws, in Latin apprænticium juris nobilibus; as appears by Mr. Selden's note on Fortescue; and so the learned Plowden styles himself. See BENCHER.

Sir Henry Finch, in his Nomenclatura, writes himself, apprentici de legi; sir Edward Coke, in his Infl. says appræntici legiæ, in pleading, are calleth bonus confiliarii. & in lege præst.; and in another place, apprentices, and other councillors of law.

APPRENTICESHIP denotes the servitude of an apprentice, or the duration of his indenture. The ingenious Dr. Smith, in his well-known and admirable work on "The Nature and Causes of the Wealth of Nations," has introduced several important and useful observations on this subject. The competition in several employments is restrained to a smaller number, than would otherwise be dispofed to enter into them, partly by the limitation of the number of apprentices, which attends the exclusive privilege of incorporated trades, and partly by the long term of apprenticeship, which increases the expense of education. Seven years seem formerly to have been, all over Europe, the usual term established for the duration of apprenticeships in the greater number of incorporated trades. Such incorporations were anciently called universities, which is the proper Latin name for any incorporation whatever. The university of smiths, the university of tailors, &c. are expressions commonly occurring in the old charters of ancient towns. When those particular incorporations, which are now peculiarly called universities, were first established, the term of years during which it was necessary to study, in order to obtain the degree of Master of Arts, appears evidently to have been copied from the term of apprenticeship in common trades, of which the incorporations were much more ancient. As to have wrought seven years under a master properly qualified, was necessary to entitle any person to become a master, and to have himself apprentices, in a common trade; so to have studied seven years under a master properly qualified, was necessary to entitle him to become a master, teacher, or doctor (words anciently synonymous) in the liberal arts, and to have scholars or apprentices (words like-wise originally synonymous) to study under him. By the 8th of Elizabeth, commonly called the statute of apprenticeship, it was enacted, that no person should for the future exercise any trade, craft, or mystery, at that time exercised in England, unless he had previously served it as an apprenticeship of seven years at least; and thus, what before had been the bye-law of many particular corporations, became in England the general and public law of all trades carried on in market towns. To country villages the term of seven years' apprenticeship doth not extend; but the limitation of this statute to trades exercised before it was passed has given occasion to several dilutions, which, considered as rules of police, appear as foolish as can well he imagined. A coach-maker, for instance, has no right to make, or employ journeymen for making, coach wheels; but he may buy them of a master wheelwright, this latter trade having been exercised in England before the 5th of Elizabeth. But a wheelwright, though he has never served an apprenticeship to a coach-maker, may, by himself or journeymen, make coaches, because this trade, being of a later origin, is not within the statute. Thus also the manufactures of Manchester, Birmingham, and Wolverhampton are, many of them, upon this account, not within the statute, not having been exercised in England before the 5th Elizabeth. The regulations of apprenticeship in Ireland are upon a different footing, and somewhat less liberal than in England. Prohibitions similar to those of the statute 5 Eliz. obtain in all corporate towns, by authority of bye-laws of the several corporations; but these prohibitions extend only to natives of Ireland; for by a regulation made by the lord lieutenant and privy council, having in this instance, by 17 & 18 Car. 11. the force of a law, all foreigners and aliens, as well persons of other religious persuasions as pro- tellants, who are merchants, traders, artisans, &c. shall, upon coming to reside in any city, walled town, or corporation, and paying twenty shillings by way of fine to the chief magistrate and common council, or other persons authorized to admit freemen, be admitted to the freedom of that city, &c. and to the freedom of guilds of their respective trade, with the full enjoyment of all privileges of buying, selling, working, &c.; and any magistrate, refusing to admit foreigners so applying, shall be disfranchised. In Scotland, there is no general law which regulates universally the duration of apprenticeships. The term is different in different corporations; where it is long, a part of it may generally be redeemed by paying a small fine. In most towns too, a very small fine is sufficient to purchase the freedom of any corporation. The weavers of linen and hempen cloth, the principal manufacturers of the country, as well as all other artisans subservient to them, wheel-makers, reel-makers, &c. may exercise their trades in any town corporate without paying any fine. In all towns corporate all persons are free to fell butchers' meat upon any lawful day of the week. Three years are, in Scotland, a common term of apprenticeship, in some very nice trades; and, in general, there is no country in Europe in which corporation laws are so little oppreive. In France, the duration of apprenticeships is different in different towns and in different trades. In Paris, five years are the term required in a great number; and before any person can be qualified to exercise the trade, as a tailor, he must, in many of them, serve five years more as a journeyman. During this latter time, he is called the companion of his master, and the term itself is called his companionship. The institution of long apprenticeships, says Dr. Smith, can give no security that inconsiderate workmanship shall not. Frequently be exposed to sale: nor has it any tendency to form young people to industry. Apprenticeship is altogether unnecessary, it being altogether unnecessary, the arts, which are much superior to common trades, such as those of making clocks and watches, contain no such mystery as to require a long course of instruction. In the common mechanic trades, the
the lessons of a few days might certainly be sufficient. The dexterity of hand, indeed, even in common trades, cannot be acquired without much practice and experience. But a young man would practice with much more diligence and attention, if, from the beginning, he wrougth as a journeyman, being paid in proportion to the little work which he could execute, and paying, in his turn, for the materials which he might sometimes spoil through awkwardness and inexperience. His education would generally in this way be more effectual, and always less tedious and expensive.

The matter, indeed, would be a loser; he would lose all the wages of the apprentice, which he now faves for seven years together. In the end, perhaps, the apprentice himself would be a loser in the trade for greatly he would have more competitors; and his wages, when he came to be a complete workman, would be much less than at present. The fame increase of competition would reduce the profits of the masters, as well as the wages of the workmen: the trades, the crafts, the mysteries would all be losers; but the public would be a gainer, the work of all artificers coming in this way much cheaper to market. Smith's Nature and Causes of the Wealth of Nations, vol. 1. p. 183–191. Irth Traft, vol. iv. pt. ii. part 59, &c.

APPRISING, in Scots Law, the name of the action by which a creditor formerly carried off the estate of his debtor for payment. It was thus called, because the sheriff, when no purchaser of the heritable rights could be found, apprised, or taxed the value of the lands by an inquest, so as to make over to the creditor lands to the value of the debt. By the act 1672, apprisions were superceded, and adjudications were substituted in their place. See Adjudication.

APPROACH, curve of equal, accessus equalis, was first proposed by M. Leibnitz, and has given the analysts some trouble. The curve is of such a nature, that a body depending in it by the sole power of gravity approaches the horizon equally in equal times.—This curve has been found by Bernouilli, Varignon, Maupertuis, and others, to be the second cubical parabola so placed as that its point of regression or vertex is uppermost, and the descending body must commence its motion in it with a certain determinate velocity. M. Varignon rendered the question general, by investigating the curve which a body might describe in vacuo, so as to approach towards a given point through equal spaces in equal times, according to any law of gravity. Maupertuis also resolved the same problem, in the case of a body depending in a medium, the refiitance of which is proportioned to the square of the velocity. Vide Hitt. Acad. R. Sciences, an. 1699. p. 82. Idem, an. 1750. p. 129. Mem. p. 333.

APPROACH, in Gardening, is used in speaking of the method of incirching or inoculating, which is called grafting by approach.

Some physicians also speak of a method of curing dis- eases by touching or approach. See Approximation.

APPROACHES, in Fortification, the several works made by the besiegers for advancing or getting nearer to a fortress, or place besieged. Such are trenches, mines, faps, lodg- ments, batteries, galleries, epaulements, &c.

APPROACHES, or Lines of Approach, are particularly used for trenches dug in the ground, and the earth thrown up on the side next the place besieged; under shelter or de- fence whereof the besiegers may approach, without loss, to the parapet of the covered way, and plant guns, &c., wherewith to cannonade the place.

The lines of approach are to be connected by PARALLELS, or lines of communication.

The besieged frequently make counter-approaches, to interrupt and defeat the enemies' approaches.

The ancients made their approaches towards the place besieged much after the same manner as the moderns. M. de Polard shews, that they had their trenches, their faps, parallels, &c., which, though usually held of modern invention, appear to have been practised long before by the Greeks, Romans, Asians, &c. Vide Polyb. t. ii, p. 161.

APPROACHES, Method of, in Mathematics, a name given by Dr. Wallis, in his Algebra, to a method of resolving certain problems relating to square numbers, &c., by first assigning certain limits to the quantities required, and then approaching nearer and nearer till a coincidence is obtained. In this fentic, the double rule of false position may be considered as a method of approaches. See APPROXIMATION.

APPROACH, in Fowling, expresses the devices made use of to get within shot of fhy birds. There are many contrivances practised for this purpose: a very common one is by means of circular pieces of wood or loops surronded with boughs, not unlike a chimney-sweeper's or milkmaid's gar- land, within which the fowler conceals himself with his gun, and fleas on the birds, who are completely deceived, imagi- ning the machine a tree, and its approach effected by their own motion towards it: it is therefore necessary that the fowler's approach should be very slow, and his motions very uniform; for any ruffle or fhlake would alarm the birds, and put them to flight. This mode is successfully practised on water-fowls when they are feeding on marshy grounds or banking on the sides of the waters. But when these birds confine themselves principally to the middle of wide rivers, or in moors and lakes, this lefly covering must be placed in a boat; or a tall screen made of straw is sometimes set upright in it, behind which the sportsman remains concealed, and either gently paddles himself near the birds, or permits the boat to drift towards them.

In moonlight nights when water-fowls come on shore to feed, they are approached by the fowler, concealing himself behind a horse, who is made to move gently towards the birds, and this practice has given rise to an artificial figure called a flanking-horse, behind which the sports- man endeavours to gain on the fowls; but this is a less cer- tain method, as they are fearful even of horses, cows, and sheep, as well as of man.

In deep snows, birds are approached by concealing every part of the person in a white dree; and even the gun must be clothed likewise. By this means hares, partridges, and moor-game are killed in abundance: but this device is not held fair in sporting language, because these are lefs wary animals, and, moreover, because there are regular meth- ods in constant practice to entrap them. When buffards were plentiful on Salisbury plain, it was usual to hunt and approach them in a kind of covered cart with loopholes through which the fowler could see and take aim at them; but cultivation and increased population have nearly destroyed these birds in England.

APPROBATION, a state or disposition of the mind wherein we put a value upon, or become pleased with, some perion or thing. Morals are divided on the prin- ciple of approbation, or the motive which determines us to approve and disapprove. The Epicureans still have it to be only self-interest; according to them, that which deter- mines any agent to approve his own action, is its apparent tendency to his private happiness; and even the approbation of another's action flows from no other cause but an opinion of its tendency to the happiness of the approver, either immediately or remotely. Tho se, who incline to this system,
reason thus: having experienced, in some instances, a particular conduct to be beneficial to ourselves, or observed that it would be so, a sentiment of approbation rises up in our minds, which sentiment afterwards accompanies the idea, or the mention of the same conduct, although the private advantage which first excited it no longer exist. Others resolve approbation into a moral sense, or a principle of benevolence, by which we are determined to approve every kind of affection, either in ourselves or others, and all publicly useful actions, which we imagine to flow from such affection, without any view to our own private happiness.

Dr. Adam Smith thinks it needless to introduce any new power of perception, in order to account for the principle of approbation; and apprehends that sympathy is sufficient to account for all the effects ascribed to this peculiar faculty. This system places virtue in utility; and accounts for the pleasure with which the spectator surveys the utility of any quality from sympathy with the happiness of those who are affected by it. This sympathy, he observes, is different from that by which we enter into the motives of the agent, and from that by which we go along with the gratitude of the persons who are benefited by his actions; and he says, it is the same principle with that by which we approve of a well-contrived machine.

Dr. Smith does not reject entirely from his system that principle of utility, the perception of which in any action or character constitutes, according to Mr. Hume, the sentiment of moral approbation. That no qualities of the mind are approved of as virtuous, but such as are useful or agreeable, either to the person himself or to others, he admits to be a proposition that holds universally; and he also admits, that the sentiment of approbation with which we regard virtue, is enlivened by that sympathy of this utility, or, as he explains the fact, by our sympathy with the happiness of those to whom the utility extends. Nevertheless he infers, that it is not the view of this utility which is either the first or principal source of moral approbation. To sum up the whole of his doctrine in a few words: when we approve of any character or action, the sentiments which we feel are derived from four different sources. First, we sympathize with the motives of the agent; secondly, we enter into the gratitude of those who receive the benefit of his actions; thirdly, we observe that his conduct has been agreeable to the general rules by which these two sympathies generally act; and, lastly, when we consider such actions as making a part of a system of behavior which tends to promote the happiness of the individual or of society, they appear to derive a beauty from this utility, not unlike that which we ascribe to a well-contrived machine. These different sentiments, he thinks, exhaust completely, in every instance that can be supposed, the compounded sentiment of moral approbation. "After deducting," says he, "in any one particular case, all that must be acknowledged to proceed from one or other of these four principles, I should be glad to know what remains; and I shall freely allow this surplus to be ascribed to a moral sense, or to any other peculiar faculty, provided any body will ascertain precisely what this surplus is."

When we approve of good actions, and disapprove of bad, this approbation and disapprobation, when we analyse it, says Dr. Reid, "Essays on the active Powers of Man," (ch. vii. p. 244) appears to include not only a moral judgment of the action, but some affection, favourable or unfavourable, towards the agent, and some feeling in ourselves. Dr. Ferguson, in "Principles of Moral and Political Science," agrees in the main with Lord Shaftesbury, Dr. Hutcheson, Dr. Reid, and Buffier, in regarding moral approbation as a specific sentiment, incapable of resolution into any other sentiment or principle.

According to Dr. Clarke and others, reason or the understanding, the same faculty by which we distinguish between truth and falsehood, enables us to distinguish between what is fit and unfit, amiable and odious, both in actions and affections; and they argue, that such are the natures of certain actions, that when perceived as they are by a reasonable being, there must result in him certain emotions and affections. An excellent writer adds, that in contemplating the actions and affections of moral agents, we have both a perception of the understanding and a feeling of the heart; and the latter, or the effects in us accompanying our moral perceptions, are deducible from two springs. They partly depend on the positive constitution of our natures; but the most steady and universal ground of them is the essential congruity between the object and the faculty. Hutchesons Inquiry, &c. trac'd iv. sect. vi. and Eff. on Pass. p. 207, Smith's Theory of Mor. Sent. Parts iv. and vi. Cudworth's Immort. Mor. b. i. Price's Review, &c. ch. ii. Paley's Philosophy, vol. i. p. 14.

APPROBATION, in Civil Law. It is a maxim among civilians, approbate &c. et non impubl. He is judged to approve who does not disapprove.

By the civil law, a mere approbation of a crime after comminution does not make a person guilty; but an approbation attended with fact is equivalent to a command.

APPROBATION is more particularly used in speaking of recommendations of books given by persons qualified or authorized to judge of them.

These appointed to grant licences and imprinture, frequently express their approbation of books.

Books were formerly submitted to a licensor in England, see 15th Car. II. c. 31, which act is long since expired; and being incompatible with the noble principles of the revolution, has never since, and we hope never will be revived.

APPROPRIARE ad bonorn, in Law, signifies to bring a man within the extent and liberty of such an honour.

APPROPRIARE communum, signifies to discommon, i.e. to separate and inclute any parcel of land, which before was open common.

APPROPRIATE, Appropriated, in Philosophy, is underfoot of something which is indeed common to several; yet, in some respects, is peculiarly attributed to one.

APPROPRIATION, in Law, denotes the annexing of an ecclesiastical benefice to the proper and perpetual use of some religious house, bishopric, college, or spiritual person, to enjoy for ever; in the same way as impropriation is the annexing of a benefice to the use of a lay person or corporation; which which is an appropriation in the hands of religious persons being usually called an impropriation in the hands of the laity. It is computed, that there are in England 3845 impropriations.

This contrivance seems to have sprung from the interefled policy of the monastic orders, who begged and bought, for mafles and obits, and sometimes even for money, all the adworons within their reach, and then appropriated the benefices to their own corporation. But, in order to complete such appropriation effectually, the king's licence and the bishop's convent must first be obtained; because both the king and the bishop might some time or other have an intereft, by laple, in the presentation to the benefice, which can never happen if it be appropriated to the use of a corporation, which never dies. The content of the patron is also necessarily implied, because the approbation can be originally made to none but to such spiritual corporation as
is also the patron of the church; the whole being, indeed, nothing else but an allowance for the patrons to retain the
titules and glebe in their own hands, without preferring
any clerk, they themselves undertaking to provide for
the service of the church. When the appropriation is thus
made, the appropriators and their successors are perpetual
parsons of the church, and must live and die, in all
matters concerning the rights of the church, by the name
of parsons. This appropriation may be severed, and
the church become disappropriate, two ways: as first, if the
patron or appropriator present a clerk who is inducted and
indicted to the parsonage; for the incumbent so instituted
and indicted is, to all intents and purposes, complete parson;
and the appropriation, being once severed, can never be
re-united again, unless by a repetition of the same solemn
nities. And when the clerk so presented is distinct from the
vicar, the rectorly then vested in him becomes what is called a
fine-cure; because he hath no cure of souls, having under
him a vicar to whom that cure is committed. Also, if the
appropriation which has the appropriation is dissolved,
the parsonage becomes disappropriate at common law; because
the perpetuity of patron is gone, which is necessary to sup-
port the appropriation. In this manner may appropriations be made at this day;
and thus were most, if not all, of the appropriations at
present existing originally made; being annexed to bishoprics,
prebends, religious houses, may even to muniments, and
certain military orders, all of which were spiritual corpora-
tions. At the dissolution of the monasteries by statutes 27
Henry VIII. c. 28. and 31 Henry VIII. c. 13. the appro-
priations of the several parsonages, which belonged to those
religious houses, amounting to more than one-third of all
the parishes in England, would have been, by the rules of
the common law, disappropriated; if a clause in those sta-
tutes had not intervened, by which they were given to
the king in as ample a manner as they were before held
by the abbots, &c. The alien priories had, in former
reigns, been dissolved and given to the crown. From these
two sources have sprung all the lay appropriations or secular
parsonages in the kingdom; they having been afterwards
granted out from time to time by the crown. Blacklione's
Com. vol. i. p. 384. &c.

APPROUAS, or Approuar, in Geography, a river of South America, in the country of Guiana, which
discharges itself into the sea; N. lat. 4° 20'. W. long. 52°
46'.

APPROUAS, or Approuar, a town of South America, in
Guiana, situate at the mouth of the river of the same
name.

APPROVEMENT, Approvamentum, or appro-
viamentum, is sometimes used in Ancient Law Writers, for
an improvement, or rise of the value and worth of a thing.
Thus to approve, approbar, is to make the best benefit of a
thing; by increasing the rent, &c. Cun omnibus approva-
mentis, at alia pertinentis juris. &c.

Hence, in some ancient statutes, bailiffs of lords in their
franchises are called their approvers. A bailiff is not to
think it below him to approve, approbar, his master's goods;
but of his barony to make malt, of his wool to make cloth,
&c.

APPROVEMENT is more particularly used where a man
hath common in the lord's waite, and the lord incolpeth
part of the waite for himself, leaving sufficient common,
with egrets and regrets, for the commoner. Reg. Jud.
3, 9. This inclosure, when justifiable, is called in law
approvement, an ancient expression signifying the same as
improvement. Accordingly, it is provided by the statute of
Merston, 20 Hens. III. c. 4. that the lord may approves, or include, and convert to the use of husbandry, which is a
melioration or improvement, any waste grounds, woods, or
pallares, in which his tenants have common appendent to
their cottages, provided he leaves sufficient common to his
tenants, according to the proportion of their land.

APPROVER, in our Lactus, one who, being indicted for treason or felony, and arraigned for the same, doth
confess the fact before plea pleaded, and appeals or accedes
other his accomplices of the same crime, in order to obtain
his pardon; and this confession is called approvement.
He is called an approver, or prover, predictor, because he
must prove what he hath alleged in his appeal. This
proof was anciently either by battle, or by the country,
at the choice of the appellee; and the form of this acculation
may be found in Clomp. Jul. 250. See also Bracton, lib.
iii. Staunfl. Pl. Cor. 52.

If the appellee were vanquished, or found guilty, he must
suffer the judgment of the law, and the approver have his
pardon ex delibo injusticia. On the other hand, if the
appellee were conqueror, or acquitted by the jury, the approver
must receive judgment to be hanged, upon his own confes-
sion of the indictment; for the condition of his pardon has
failed, viz. the conviction of some other person, and there-
fore his conviction remains absolute. It is purely in
the discretion of the court to permit the approver thus to appeal,
or not; and, in fact, this course of admitting approachoms
has been long disused. But we have, in cases of burglary
and robbery on the highway, what seems to amount to the
sain by statute; it being ordained, that where persons
charged with such crimes out of prifon, discover two others
concerned in the crime, they shall have a pardon, &c. Stat.

APPROVERS of the king, are those who have the letting of
the king's demesnes in small mansors, &c. Stat. 51 Hen. III. b. 5.

In the statute of the 11th of Ed. III. c. 8. sheriffs are
called the king's approvers.

APPROVER is particularly used, in Ancient Law Writers,
for a bailiff or land-steward, appointed to have the care of a
manor, franchise, or the like, and improve and make the
moll of it for the benefit of his master.

In this sense, the word is also written approver.

APPROXIMATION, from ad, and proximus, near
to, in Arithmetic and Algebra, a continual approach fill
nearer and nearer to a root or quantity sought, without a
possibility of ever arriving at it exactly.

Methods of continual approximation for the square roots
and cube roots of numbers have been employed by Algebraists
and Arithmeticians, from Luers de Burgo, and perhaps a
much earlier period, to the present time. For the roots
of higher powers, and of all simple equations, and also for
the roots of all compound equations whatever, we have
approximations by Wallis, Raphson, Halley, and
later writers, especially Newton, De Lagny, &c. all of them
forming serieses infinitely converging, or approaching fill
to the quantity required, according to the nature of the
series.

It is evident, that if a number proposed be not a true
square, it is in vain to hope for a jaff quadratic root there-
of, explicable by rational numbers, whether integers or
fractions; whence, in such cases, we must content ourselves
with approximations, somewhat near the truth, without pre-
tending to accuracy: and so for the cubic root, of what is
not a perfect cube, and the like for superior powers.

This the ancients were aware of, and accordingly they
had their methods of approximation; which, though fearfully
applied by them beyond the quadratice, or perhaps the cubic
roots,
root, are yet equally applicable, by due adjustments, to the superior powers also, as is shown by Dr. Wallis, in the Phil. Transact. Ns. 215, or Pr. Tr. Ab. vol. I. p. 93.

The rule of double position furnishes an easy and general method of approximation. See Position.

For the roots of pure powers, many rules are given by writers on this subject; but the following, discovered by Dr. Hatton, and published in the first volume of his "Mathematical Tracts," is peculiarly recommended by its convenience for practice.

Let $N$ be any number, the root $r$ of which is to be extracted, and let $n$ be the nearest root first found by trial:

$r+1.N + r-1.n$ = $r-1.N + r+1.n \times n$ will be equall to the required root of $N$ very nearly; or expressing this theorem in a proportion, we shall have the following ratio: $r + 1.N + r-1.n : n = r-1.N + r+1.n \times n$,

$r+1.N + r-1.n : n$ : the required root, very nearly.

In order to find a root still nearer, substitute the last value of the root sought for $n$, and repeat the operation, as often as may be thought necessary. This theorem includes all the rational formulae of Halley and De Lagrange. E.G. Let it be required to double the cube, or to find the cube root of the number 2. In this case $r=3$, $r+1=4$, and $r-1=2$; and the general theorem will be $4N+2n2 = 2N2n$, or $2Nn = N2n$, or $N = 2n2$.

$x = 2n2$, or the cube root of $N$; or the proportion will be $N + 2n2$ = $2N + n2$ = $n$: the root sought nearly. Hence $N$ being 2, the nearest root $n$ is 1, and its cube root also is 1: consequently $N + 2n2 = 2 + 2 = 4$, and $2N + n2 = 4 + 1 = 5$; therefore $4 : 5 = 1 : 1.25$ is the result of the first approximation. Again, taking $n = \frac{1}{2}$, and consequently $n^3 = \frac{125}{64}$, we shall have $N + 2n2 = 2 + \frac{25}{64}$ = $\frac{378}{64}$, and $2N + n2 = 4 + \frac{125}{64}$ = $\frac{381}{64}$; and therefore the proportion will be $\frac{378}{64} : \frac{381}{64}$, or $i.e. = \frac{378}{381} = 0.9816$ or $125:127$.

$\therefore : \frac{5}{5} = \frac{555}{555} = 1.2500$, &c. the cube root of 2, true in all the figures: and by again taking $\frac{635}{635}$ for a new value of $n$, and repeating the process, many more figures may be found; and the result more nearly obtained.

Another method of approximating to the square root or cube root of any number, that is not a perfect square or cube, is as follows: First of all suppose two facticeive square or cube numbers, one greater and the other less than the given number, and whose square or cube roots differ from one another by unity. Then for the square root, it is evident that the given square number may be represented by $m^2 + n$; $m$ being greater or less than the given number, and $n$ being the part which is to be added in the former case and subtracted in the second, in order to obtain the said number.

Thus, $\sqrt{m^2 + n} = \frac{m + \sqrt{m^2 + n}}{2}$ = $\frac{m^2 + n}{2m}$ = $\frac{m^2 - n^2}{2m}$ = $\sqrt{m^2 - n^2}$, &c. will be the square root required. This series will always converge, because quantities are supposed to be integral numbers, and $n$ not to exceed unity: e.g. let the non-quadratic number $m$ be 150, and the nearest square numbers being 144 and 169, and their square roots 12 and 13, and 150 being nearer to 144 than to 169, $m^2 = 144$ and $n = 6$; and the formula $m^2 + n$ will be 144 + 6; consequently $\sqrt{144 + 6} = 12 + \frac{6}{24}$.

$\therefore \frac{36}{8} \times 1728 + \frac{216}{1624832}$ &c. Of this converging series it will be sufficient to take the three first terms for the required square root of 150: i.e. 12 + 1 + $\frac{1}{4}$ = 12 + $\frac{95}{384}$ = 12.247395 for the approximated root. The process is the same for the cube root, biquadratic root, &c.: e.g. let a number, which is an imperfect cube, be represented by $m^3 + n$, $m$ being the next greater, or next less cube to the number given, and $n$ the part to be added or subtracted, so as to give the proposed number. Then $\sqrt[3]{m^3 + n} = m + \frac{n}{2m} = \frac{n^2}{2m} = \frac{n^3}{2m^2} = \frac{n^4}{2m^3} = \frac{n^5}{2m^4} = \frac{n^6}{2m^5} = \frac{n^7}{2m^6} = \frac{n^8}{2m^7} = \frac{n^9}{2m^8} = \frac{n^{10}}{2m^9}$ &c. will be the cube root sought. The reader conversant with subjects of this nature, will easily supply an example.

To extract the roots of equations by Approximation. Stevinus and Vieta propo'd methods for obtaining the roots of equations by approximation; and their methods were improved and pursu'd by Oughtred and others. However they required a different process for every degree of equation, and of course were very tedious as well as imperfect. Sir Isaac Newton introduced general methods for investigating and expressing radical quantities by means of approximating, infinite series, and also the roots of all sorts of compound equations whatever, which methods are easy and expedient. For the approximation of roots he pursu'd the following method: he first found by trial the value of the root, either greater or less, but nearly equal to it; then assuming another letter to denote the unknown difference between this and the true value, he substituted in the equation, instead of the unknown root or letter of the equation, the sum or difference of the approximate root and the said assumed letter; and thus he obtained a new equation, having only the assumed small difference for its root or unknown letter, and then found by a certain method which he purposed, from this equation, a near value of this small assumed quantity. He then assumed another letter for the small difference between this last value and the true one, and substituted the sum or difference of these into the last equation, whence arose a third equation, involving the second assumed quantity, whole near value he found as before. Proceeding thus as far as he thought proper, he connect'd together by their proper signs all the near values that had been found, and thus formed a series approaching still nearer and nearer to the true value of the root of the first or proposed equation. The approximate values of the several small assumed differences may be found in different ways. Newton's method was as follows: as the quantity sought is small, its higher powers decrease more and more, and therefore no great error will result from neglecting them; accordingly Newton neglected all the terms having in them the second and higher powers, leaving only the first power and the absolute known term; from which simple equation he always found the value of the assumed unknown letter nearly, in a very simple and easy manner. Halley's method of doing the same thing, was to neglect all the terms above the second power, and then to find the root of the remaining quadratic equation; which would give a nearer value of the assumed letter than Newton's method, but by a more troublesome and less expeditious processes. Raphson has proposed another method, little different from that of Newton, thus: having found a near value of the first assumed small quantity or difference, he corrected this by the first approximation to the root of the proposed equation; and then, assuming another letter for the next, or smaller difference, he introduced it into the original equation in the same manner as before;
and thus he proceeded from one correction to another, employing always the first proposed equation to find them, instead of the successive near equations used by Newton.

E. C. Let it be required to find the root of the equation $x - \frac{3x}{3} = 31$ or $x - \frac{3x}{3} - 31 = 0$; here the root $x$ is evidently equal to $8$ nearly; and therefore for $x$ take $8 + \alpha$, and substitute $8 + \alpha$ for $x$ in the given equation, and the terms will be as follows:

$$x^3 = 64 + 16\alpha + \alpha^2,$$
$$x^2 = 64 + 16\alpha,$$
$$x = 8 + \alpha,$$
$$\alpha = 0.1.$$  

the sum is $7 + 11\alpha + \alpha^2 = 0$. Then, rejecting $\alpha$, we have $x = 7 + 11\alpha$, and $x = 7.03$, &c. Consequence, or $0$ nearly.

Next assume $z = 0.5$, then

$$0.5^2 = 0.25,$$
$$0.5^3 = 0.125,$$
$$0.5^4 = 0.0625,$$
$$0.6 = 0.6,$$
$$0.7 = 0.7.$$  

the sum $-0.4 + 12.2y + y^2 = 0$, and rejecting $y$, $12.2y = 0.04$, and $y = \frac{0.04}{12.2} = 0.003278$ nearly. Assume $y = 0.003278 - z$, then

$$y^2 = 0.00001075284 - 0.00556 \alpha + \alpha^2,$$
$$2.2y = 0.000909010 - 12.2 \alpha,$$
$$-0.4 = -0.4.$$  

the sum $0.00001345284 - 0.20556 \alpha + \alpha^2 = 0$, and $\alpha = \frac{-0.00001345284}{12.20556} = \frac{0.0000124133}{12.20556}$. Hence, collecting all the assumed differences, with their appropriate signs, we shall have $x = 8 + y + z = 1.6 + 0.3278 + 0.003278 = 8.6032787867$; the required root of the equation proposed, according to the method of Newton.

Raphson’s process is as follows: assume $x = 8 + z$; then

$$x^3 = 64 + 16\alpha + \alpha^2,$$
$$x^2 = 64 + 16\alpha,$$
$$x = 8 + \alpha,$$
$$\alpha = 0.1.$$  

the sum $7 + 11\alpha + \alpha^2 = 0$; hence $x = 7.03$, &c. Consequence, or $0$ nearly.

Assume $x = 8.6 + y$; then $x^3 = 73.90 + 17.2y + y^2$,

$$-5x = -43 - 5y,$$
$$-31 = -31.$$  

the sum $-0.04 + 12.2y + y^2 = 0$; hence $y = \frac{0.04}{12.2} = 0.003278$ nearly; and $x = 8.6 + y = 8.603278$ nearly. Assume $x = 8.603278 - z$; then

$$x^3 = 74.10639245284 - 17.20556 \alpha + \alpha^2,$$
$$5x = -43.0163900 + 5 \alpha,$$
$$-31 = -31.$$  

the sum $0.00001345284 - 0.20556 \alpha + \alpha^2 = 0$, and $\alpha = \frac{-0.00001345284}{12.20556} = \frac{0.0000124133}{12.20556}$ as before.

For the cubic equation e. g. $y^3 - 2y - 5 = 0$, Newton proceeds thus:

$y$ is nearly $2$; assume therefore $y = 2 + \beta$; then,

$$y^3 = 8 + 12\beta + 6\beta^2 + \beta^3,$$
$$-2y = -4 - 2\beta,$$
$$-5 = -5.$$  

the sum $1 + 10\beta + 6\beta^2 + \beta^3 = 0$; hence $\beta = 1.8$. Consequence, or $0$ nearly.

Assume $\beta = 1.8$, then

$$\beta^3 = 0.001 + 0.037 + 0.39 + 0.83,$$
$$\beta^3 = 0.006 + 0.129 + 0.62,$$
$$\beta^3 = 1 + 0.9,$$
$$\beta = 1.8.$$  

the sum $0.001 + 11.237 + 0.37 + \beta^3 = 0$; hence $q = -0.0034$ nearly.

Assume $q = -0.0034 + r$; then

$$q = -0.0000157464 + 0.00000078458, \&c.$$
$$q = -0.00001803786, \&c.$$
$$+11.237 = -0.066042 + 11.237 \beta,$$
$$+0.001 = +0.001.$$  

the sum will be $0.000054155330 + 0.000014248$; hence $r = 0$. Consequence, or $0$. Consequently,

$$y = 2 + \beta + q + r,$$
$$2 + 0.1 = -0.0034 + -0.000048517,$$
$$2.0034551483, \beta 

In the same manner Newton proceeds for the root of the equations of literal equations, that is, equations having literal coefficients; thus, the root of this equation,

$$y + asy + ay^2 = -x^3 = 0,$$  

is

$$y = \sqrt[3]{\frac{x^3}{4} + \frac{13x^3}{54}} + \frac{13x^3}{54}, \&c.$$  

Vid. De Analysi per &c. Cap. vi. §. 1 and 2, apud Oper. Newton. t. p. 270, &c. Geometria Analytica, cap. ii. &c. Ed. Hor. Raphson. Analyseum Universalis. Phil. Trans. &c. M. Newton. t. p. 349, &c. Ed. Hor. Raphson. Analyseum Universalis. Phil. Trans. &c. M. Clairaut, in his “Algebra”; and by Dr. Hutton, in vol. i. of his “Tracts.” Belides, the methods of infinite series by Wallis, Newton, Gregory, Mercator, Machin, &c. may be considered as approximations in quadratures, and other branches of the mathematics, many inferences of which may be seen in Wallis’s Algebra, the Philosophical Transactions, and other works on the subject. To this head may be referred the methods of exhaustions of the ancient, by which Archimedes and others have approximated to the quadrature and rectification of the circle, &c. which was performed by continually bisecting the sides of polygons, both inscribed in a circle, and circumscribed about it, which means the sums of the sides of the familiar polygons approach continually nearer and nearer to each other, and the circumference of the circle is nearly a mean between the two sums. See Equation.

Approximation, in Medicine, denotes a magnetic kind of cure or method of transplanting a disease into some other subject, whether animate or vegetable, by bringing it in immediate contact with the patient.

Approximation, in Surgery, Appropinquatio, Enzyma, Enzyma Ossum Cranii. Fr. Approximation des os du crane; Germ. Die Ueberwindung fehlbeg. des Hirnschadelns. This term is applied to those wounds of the head, in which the skull being fractured, one or more of the splinters are forced under the found part of the bone, so as to occasion a compression of the dura mater. In the delivery of a child, this occurrence with the bones of the cranium, one lapping over the other, is a natural circumstantial. APPUI, in the Manege, q. d. rest or stay upon the hand, is the reciprocal effort between the horse’s mouth and the bridle-hand; or the sense of the action of the bridge on the hand of the horsemann. A jult appui of the hand, is the nice bearing up or stay of the bridge; so that the horse, being saddled by the sensibility and tenderness of his mouth, dair not rest too much upon
APP

upon the bit-mouth, nor check or beat upon the land to withstand it.

A dull appui, is when a horse has a good mouth, but his tongue is so thick that the bit cannot work, or bear upon the bars; the tongue not being so flexible as the bars; though the like effect is sometimes owing to the thickness of his lips. A horse is said to have no appui, when he dreads the bit-mouth, is too apprehensive of the hand, and cannot bear the bit. He is said to have too much appui, when he resists, or throws himself too much, or too hardly, upon the bit. Horses designed for the army ought to have a full appui upon the hand. See HAND.

APPULSE, from ad, and pule, I call on, in a general sense, a thing's being brought to, or in contact with another.

Articulation is either by appulse, i.e. when one of the moveable organs touches and holds on some of those which are immovable; or without appulse, only by inclination of the moveable organ to the immovable.

APPULSE of cattle, appulsus pecoris, in the Civil Law, the right of driving them to water.

APPULSE, in Astroonomy, the approach of any planet to a conjunction with the sun, or a star; so that they may be seen within the range of the telescope; or, as some authors have defined it, the actual contact of two luminaries.

The appulse of the planets to the fixed stars have always been of great use to astronomers, in order to fix the places of the former. The ancients wanting an easy method of comparing the planets with the eclipses, which is not visible, had recourse to any other way of fixing their situations, but by observing their track among the fixed stars, and remarking their appulse to some of these visible points. Hill. Acad. Scien. an. 1710, p. 417.

Dr. Halley has published a method of determining the places of the planets, by observing their near appulse to the fixed stars. Phil. Tranf. No 369. See also Phil. Tranf. No 76, p. 361, and Mem. Acad. Scien. for 1708, where Flamsteed and de la Hire have given observations of the moon's appulse to the Pleiades.

For discovering the longitude at sea, observations of the appulse of the moon to the fixed stars afford an excellent method. See LONGITUDE.

Of all the celestial observations hitherto made, none are capable of so perfect an exactness, as the near appulse of the moon and planets to the fixed stars; for though the places of the stars have not as yet attained their ultimate precision, yet such observations are ever good, the places of the planets being thereby ascertained in proportion to the correctness of any catalogues that may be made hereafter. But the ordinary number of stars, with which the planets may be thus compared, being small, the opportunities of observing are consequently rare; whence appears the great use of a full catalogue of all the telescopical stars within the zodiac, viz. that thereby opportunities of observing appulse may be more frequent. Since the royal observatory at Greenwich was put under Dr. Halley's care, he endeavoured to put himself in a condition to supply the many and great vacancies to be met with in the present zodiac; and for the service of astronomy, published a map or planisphere of the starry zodiac, wherein are accurately laid down all the stars to which the moon's appulse has ever been observed in any part of the world. Phil. Tranf. Abr. vol. vi. p. 170.

His successors in that department, and particularly the present astronomer royal, Dr. Maskelyne, have contributed, in a very high degree, to the facility and use of such observations. See NAUTICAL ALMANAC, and LONGITUDE.

APURTENANCES, or APPURTENANCES, in Common Law, signify things belonging to some other as their principal.

The word is formed of ad, to, and pertinent, belonging. Appurtenancies may either be things corporeal, and which belong to a chief tenant, and common of pasturage, trees, &c.; or incorporeal, as liberties and services of tenancy.

See APPENDANT, and COMMON.

APREMONT, in Geography, a town of France, in the department of the Higher Alps, and chief place of a canton, in the district of Sables d'Olonne, long. of S. of Sables d'Olonne, and 4 N.E. of Challans.

APRES, a fictitious or heraldic animal, drawn as a bull with a short tail, like that of a bear; it is borne as the sinister supporter to the arms of the company of Muco voy merchants.

APRES-LES-VEYNE, in Geography, a town of France, in the department of the Higher Alps, and chief place of a canton in the district of Gap. The place contains 857, and the canton 5300 inhabitants: the territory includes 245 kilometers and 9 communes.

APREY, a town of France, in the department of the Upper Marne, and chief place of a canton in the district of Langres, 8 miles S. W. of Langres.

APRI, in Natural History, a species of Thaenia that infests the liver of the boar. Gaese Eingewe.—Gmelin.

APRI, is also the specific name of another kind of vermian that inhabits the intestines of the boar; it is of the Trichocephalus genus, and is thus described. Tail furnished on each side with ciliated scales. Gaese Eingewe. This is of the same size as T. hominis, which infests the human body.

APRI, a third kind of vermis, also belonging to the Ascaris genus. It is found in the lungs of the boar; is viviparous, brittle, tapering to a point at each end; slender as a fine thread, and an inch in length.

APRICARIUS, in Ornithology, a species of Charadrius, about the size of the golden plover, that inhabits the northern parts of Europe; as Sweden, Denmark, Iceland, and Greenland; and feeds on worms, and the buds of the black-berryed heath in the latter. The flesh is delicious. The specific character is, the chin and abdomen black; body brown, dotted with white and yellow; legs cinereous. Linn. To which may be added, the length of the bill is one inch, its colour brown; the eyes large, irides brown; the feathers black; forehead, between the eyes, white, a line of which is continued over each eye, down the sides of the neck, and unites on the breast in the form of a transverse bar. The vent is spotted with white; secondaries, quills, and tail, barred with black and brown; legs black.—The male is distinguished by having a black patch on the temples.

This is Pluvialis aurica floriuse Hudsons of Britain; pluvier doré à gorge noire of Buffon; spotted plover of Edwards; and alwargrim plover, Arch Zool. & Lath. Gen. Syn.

APRICOT, in Botany. See PRUNUS.

APRICOT, in Gardening, a general name applied to a fruit-tree of the plum kind. This tree, we are told by different writers on gardening, came originally from Armenia, whence it takes the name of Armeniaca. It was introduced into this country, according to Mr. Forstyth, in 1562. The same writer also remarks, that though the apricot will not take upon the cherry-bloek, it will succeed upon all sorts of plums, except the Bruxells. The following selection of apricots is recommended as the most suitable for a small garden. The Malfastia, the Roman, the Orange, the Breda, and the Moor Park. The most proper time for planting trees of this kind, the above author observes, is in autumn, as soon as the leaf begins to fall; such trees being chosen for this purpose as have the strongest and cleanest stems, and if such as have been headed down, and are of two,
two or three years growth, they will bear and fill the wall of much sooner than those which have not been so treated. He thinks they should only have one item; or if they have two, one of them should be cut off; for by planting those with two items, the middle of the tree is apt to be left naked, and of course one-third of the wall remains uncovered by the branches. The writer, however, feels fully aware, that it is the practice of many to make choice of trees with the smallest items; but these, he thinks, always produce weaker fruits than such as he has recommended. The Breda is supposed the best and the richest flavoured for a standard, although the Brouvils is frequently preferred; but Mr. Forby would by no means recommend planting more than three trees of each sort in a garden, as standards; as it is not one year in ten, he says, that a tolerable crop is produced from them. He thinks the Breda, the Brouvils, and the Moor Parks, should always be planted on an east or west aspect. A few trees for an early supply may be planted on a south aspect, according to the size of the garden, and the demand there may be for the supply of the family; but a west aspect is far preferable for the general crop. Those who wish for a late supply, may also have some trees planted on an east aspect.

In planting the trees, it is recommended, where the borders are near, that they should be made two feet and a half or three feet deep of good, light fresh loam; and that in old borders, where the earth has been injured by the roots of the former trees, it will be necessary to take out the old mould at least three feet deep and four feet wide, filling up the hole with fresh loam, taking care to plant the trees about eight inches higher than the level of the old border, to allow for the sinking of the earth, and that they may not afterwards be too deep in the ground. But the propagation, culture, and management of apricot trees, will be more fully treated of under the article Prunus.

The produce of the apricot tree is highly valuable as a summer fruit, for different purposes; while green and young, for tarts, pies, &c.; when ripe, it is a fine table fruit, provided it be gathered before it become soft and mealy; and when preserved in sugar, is an excellent sweetmeat.

APRILS, in Biography and Ancient History, succeeded his father Flaminus or Planitius, as king of Egypt, in the year before Christ 594, and is supposed to have been the Pharaoh-Hophra of Jeremiah, ch. xxxvii. 5; and Ezekiel, xvii. 15. Herodotus (l. i. c. 161.) and Diodorus (l. i. p. 62.) give him the character of a martial prince; and speak of successful wars which he carried on against the Tyrians, Sidonians, and Cypriots. Having taken Sarbon by storm, and made himself master of the isle of Cyprus, he returned with immense spoil into Egypt. In the first year of his reign, he entered into a league with Zedekiah king of Judah, against the king of Babylon; and about two years after, attempted to relieve Jerusalem, which was strongly beleaguered by Nebuchadnezzar; but as the Babylonians approached, he and his Egyptian army fled, and left the Jews to the merciless rage of their enemies. Towards the latter end of his reign, the Libyans applied to him for succour against the Cyrenians, a Greek colony of Africa, by whom they were invaded; but the powerful army which he sent to their relief, being defeated with great slaughter, a discomfit, which terminated in a civil war, took place among his own subjects. Amasis, who was employed to quell the tumult, betrayed Aprils, and was proclaimed king. In a battle near Memphis, Aprils was vanquished and made prisoner, and after some time was strangled; having reigned, according to Herodotus, 25 years, but 22 according to Diodorus. Anc. Un. Hist. v. i. p. 312.

APRIGLIANO, in Geography, a town of Italy, in the kingdom of Naples, and province of Calabria Citera, 7 miles S. E. of Cosenza.

APRIL, the fourth month of the year, according to the ancient computation; but the second, reckoning from the vernal equinox.

The word is derived from Aprilis, of apiris, I open; because the earth, in this month, begins to open her bosom for the production of vegetables; or, as others say, from Apiris, the Greek appellation of Venus.

In this month the sun travels through parts of the signs Aries and Taurus.

APRILE GIUSEPPE, in Biography. See TENDUCHE, and CANTARE.

APRILINA, in Entomology, a species of Phalaena, in the Nectis family, described by Linnaeus, and Fabricius. Both authors, it must indeed be remarked, have made great confusion between this and another species of the same family; viz. Runica: and Entomologists have been under considerable doubts respecting the identity of these. These are natives of Great Britain, and as such fully noticed by Mr. Donovan, in his "Natural History of British Insects;" from which it appears that the Linnaean species named Aprilina, is the same as Fabricius calls Runica; and, on the contrary, the Runica of Linnaeus is the Aprilina of Fabricius: to reconcile the difficulties arising from this confusion, the two insects are thus defined.

Phalaena Aprilina: thorax crested; wings distended, green; a black mark and transverse band; and a single row of black triangular dots near the apex. Vol. x. p. 57.

Phalaena Runica: thorax crested; first wings greenish, with black marks; and a row of triangular dots behind. Vol. x. p. 75.

And it is further observed, that the two black semicircles on the thorax, and double row of triangular spots at the ends of the posterior wings, are mentioned as peculiarities of the species Runica, by some writers; the latter is, however, liable to considerable variations, the spots being in general crowded in a confused series, and forming an irregularly interrupted line. It may be easily distinguished from the Phalaena Aprilina, by its superior size; the colours are less vivid, and it is distinble of the broad transverse bar, which is conspicuous on the upper wings of Phalaena Aprilina. Vide Don. Brit. Inf.

APRILIS, or Prisus Lacus, in Ancient Geography, Lago de Caglioles, a lake of Italy, belonging to Eturia, to the west of Nulien.

APRIO, in Geography, a town of European Turkey, in the province of Romania, the see of a Greek archbishop; situated on the Lirviss, between Trajanopolis and Rhodolus. It was anciently called Theodosiopolis, from its being a favourite residence of Theodosius the great; and afterwards April or Aprilis.

APRIO, or Aprilis, in Naval Architecture, is a piece of curved timber fixed behind the lower part of the stern, immediately above the foremost end of the keel.

APRON, in Gunny, a piece of lead which casts or covers the vent or touch-hole of a cannon.

APROS, in Ancient Geography, a river of Gaul, in the country of the Oxybians; supposed by M. D'Anville to be the present Loup.

APROSIO, Angelico, in Biography, a learned Augustine monk, was born at Ventimiglia in Genoa, in 1507. In Genoa he taught philosophy for five years, and he afterwards settled at Venice, where he lectured on polite literature.
nature. Of the library of the Augustines, founded by him in his native place, he published a catalogue, under the title of "Bibliotheca Aproliana," printed at Bologna, in 1673,
12mo.; which contains an account of his own life, and
various authors. He wrote many fabulical or humorous
pieces under fictitious names. He died about the year 1682.

APRUSA, in Ancient Geography, a river of Italy, placed
by Piny in Umbria, and supposed by Hardouin to be the
present Avis.

APRUTUM, APRIGLIANO, a town of Italy, in Bruto-
tium, fourth book of Callistus; and supposed by Hardouin to be the
Aefulnum of Ptolemy.

APRUTUM, a town of Italy, now Teramo.

APSAIUS, a town placed by Ptolemy in Macedonia.

APSYNES, in Biography, a sophist and rhetorician of
Athens, was born at Gadara of Phoenicia, and flourished
about the year 236. Philonorus was his friend, and
celebrates his accuracy as a writer, in the left book of his
sophists. His remains are to be found in Manutius's Col-
lection of Rhetoricians, published at Venice in 1603. fol.

APSYNTII, in Ancient Geography, people who inhabited
the southern part of Thrace, towards the coasts, east of
the river Melas, and west of the Hebrus. They took their
name from the river Apisintus, which traversed their country.

APSIUS, or APSIS, signifies the bared or arched roof of
a house, room, or even, &c. as also the ring or compass of a
wheel.

APSIUS, in Ecclesiastical Writers, denotes an inner part in
the ancient churches, wherein the clergy fat, and where
the altar was placed. It is supposed to have been thus
called, because covered with an arch or vault of its own, by the
Greeks called αψις, and by the Latins apsis. I suppose, with
less probability, it is called as being the most lu-
minous part; from αψις, to give light.

Apsi, in this sense, amounts to the same with what is
otherside called choir, concha, camera, and prothesis; and
stands opposite to the nave or body of the church.

APSIUS is more particularly used for the bishop's seat, or
throne, in ancient churches. This was more peculiarly
called apsis gradata, because raised on steps above the
ordinary stalls. It was also denominated exedra, and in later
times tribunal.

APSIUS is also used for the reliquary, or cafe, wherein the
relics of saints were anciently kept. It took the name apsi
from its being round, or arched at the top; or perhaps from
the place where it was kept. The apsis was commonly placed
on the altar; it was usually of wood, sometimes also of gold
and silver, with sculptures, &c.

APSIUS, in Astronomy, is applied to either of the two points
in the orbits of planets, wherein they are at the greatest,
and the least distance from the sun, or earth. The apsis at the
greatest distance is called the major or oppress apsis; that
at the least distance, the lesser, apsis minima, or infrantis. The two
apses are also called aequis. The higher apsis is more par-
cularly denominated the aphasis, or apgesis; the lower, the
perihelion or perilune. The diameter which joins these two
points is called the line of the apsis, and this passage through
the centre of the orbit of the planet, and the centre of the
earth or sun. In the modern astronomy, this line makes the
longer or transverse axis of the elliptical orbit of the planet.
Such is the line AQ (Plate I. Astron. fig. 9.) drawn from
the apsion A to the perihelion Q. The eccentricity is
reckoned in the line of the apsis; being the distance be-
 tween the centre of the orbit of the planet C, and the centre
of the sun or earth, S, according as the Copernican or the
Iteolemaic system is followed.

These definitions suppose that the lines of the greatest
and least distances form one and the same right line; but
this is not always precisely the case; as sometimes make
an angle with each other, which is greater or less than
80 degrees; and the difference from 180° measures the motion
of the line of the apsis. When this angle is less than 180°,
the motion of the apsis is said to be contrary to the order
of the signs, and when it exceeds 180°, the motion is ac-
cording to the order of the signs. Astronomers have pro-
posed various methods for estimating the motion of the
apsis, several of which are recited and explained in the
"Astronomy" of Keil and that of Monnier. Newton, in
his "Principia," has given an excellent method for deter-
mining the motion of the apsis of a planet, occasioned by
the attraction of another, on the supposition that the plan-
etary orbit is little different from a circle. He shows, that,
if the sun be immovable, and all the planets gravitate
towards him, in the inverse ratio of the squares of their
distances, the motion of the apsis will be nothing; or the
lines above mentioned will make an angle with each other
of 180°, or form one straight line. But, on account of the
mutual gravitation of the planets towards one another, their
gravitation towards the sun is not precisely in that ratio,
and consequently their apsis are not always exactly in a right
line with the sun; and Newton has given a very elegant
method of determining the motion of the apsis, on the
supposition that we know the force which is thus added to
the gravitation of the planet towards the sun, and that this
additional force is always directed towards the sun, which
is not precisely the case. For the motion of the apsis,
see APHELION, APOGES, and PLAINET.

Kepler discovered, from observation, that the velocities
of the planets in their apsis, are inversely as their distances
from the sun; hence it follows, that they deferibe, in
these points, equal areas about the sun in equal times.
And although he could not prove, from observation, that
the same was true in every point of the orbit, yet he had no
doubt that this was the case. He therefore applied this
principle to find the equation of the orbit, and, finding
that his calculations agreed with observations, he concluded it
was true in general, "that the planets describe about the sun
equal areas in equal times." This discovery was, perhaps,
the foundation of the "Principia," as it probably might
favour to Sir Isaac Newton the idea that the proposition
was true in general, which he afterwards proved it to be.

APSORRUS, or APSARUS, in Ancient Geography, a river
in the district of Colchis, which fell into the Euxine sea, to
the call of Athens.

APSorrus was also the name of a town in Asia, on the
coast of the Euxine sea.

APSUS, now Creusa, a river of Europe, in Macedonia,
which rises in Mount Tomaritis, and runs into the Adriatic
sea, at some distance to the south of Dyrachium. This river
watered a valley, which the ancients compared to that of
Tempel. The Roman and Macedonian armies encamped on
the banks of this river, in the war against Philip.

APSYCHIA, from α, privative, and ψυχη, soul, in
Medicina, a frowning or fainting away, called also gynychia
and apsiychia.

APSYCTOS, from α, and ψυχη, I cool, a word used by
the ancients, as the name of a stone found in Arcadia,
and of the colour of iron, the quality of which they say was,
that when once heated red-hot, it would never grow cold again.

We have some stones indeed in England, that when once
heated, will retain a warmth for a long time, but all the other
accounts seem groundless; our warming-stone, used in Corn-
wall and Yorkshire to lay at the feet of people's beds, will
retain warmth eight or ten hours; and there is a sort of red
stone.
APT in Geography, a town of France, and principal place of a district in the department of Vienne; the fee of a bishop, fullrann of Aix, before the revolution; the cathedral is said to be the oldest in France, and a council was held here in 1352. It is situated on the river Calavon, 9 leagues E. of Avignon, and 7 N. of Aix. N. lat. 43° 52'. E. long. 5° 56'.

APT JULIA, in Ancient Geography, called also Civitas Apteum, a town of Gallia Narbonensis; now Apte.

APTENODYTES, in Ornithology, a genus of the order Austeridae. The bill is straight, rather compressed, and sharp along the edges; the upper mandible is obliquely falcated lengthwise; feet palmated, thacked; wings fan-shaped, and without quill feathers.—Gmelin, &c. This is the genus Pinguin of Dr. Latham's Synopsis; its character of it is more copious, and is as follows: bill strong, straight, more or less bending towards the point, covered with the fides; nostrils rounded, placed in furrows; tongue covered with strong spines, pointing backwards; wings small, more like fins, covered with longer feathers than the rest of the body, undeveloped in flight; body clothed with thick short feathers, having broad shafts, and placed as compactly as scales; legs short and thick, placed near the vent; toes four, all placed forwards, the interior loofe, the rest webbed; tail very fift, consisting of broad shafts scarcely webbed.

"This genus of birds," adds Dr. Latham, "seems to hold the same place in the southern parts of the world as the auk do in the northern, and are by no means to be confounded with the one or the other, however authors may differ in opinion in respect to this matter. The penguin is seen only in the temperate and frigid zones, on that side of the equator which it frequents; and the bird is observed of the auk in opposite latitudes; and neither of the genera has yet been observed within the tropics. The auk has true wings and quills, though small; the penguin, more fins only, instead of wings. This bill has four toes on each foot; but the former only three. The penguin, while swimming, sinks quite above the breast, the head and neck appearing only out of the water; rowing itself along with its finny wings, as with ours; while the auk, in common with most other birds, swims on the surface. Several other circumstances, peculiar to each, might be mentioned, if these were insufficient to characterize this genus.

"The bodies of the penguin tribe are commonly so well and closely covered with feathers, that no wet can penetrate; and as they are in general excessively fat, these circumstances unite to secure them from cold. They have often been found above seven hundred leagues from land; and frequently on the mountains of ice, on which they seem to feed without difficulty, as the foles of their feet are very rough, and suited to the purpose." Gen. Syn. vol. iii. p. 2.

The birds called by Buffon and some others penguin or penguin, belong to the Alca genus of Gmelin.—The last author describes the following species of the Aptenodytes genus: cluflonae, patagonica, pape, anarctica, magdalenica, demersa, cataracte, turquadra, minor, chionocephala, and chilensis.

APTERA, from α and ωγγως, wing, in Entomology, the seventh and last order of insects in the Linnean system. The definition of the order is simply this: aptera, wingless; and the genera are divided into the three following sections:

- Legs six: head distinct from the thorax: comprehending the leptura, podura, termes, aphelurus, and julius, genera.

- Legs from eight to fourteen, inclusive: head and thorax united: comprehending the acarus, hydrachna, arana, phalangium, scorpio, monocusus, and oniscus, genera.

- Legs numerous: head distinct from the thorax: comprehending the two last genera, scolopendra, and julius.

It must, however, be observed, that this arrangement, though preferable to that of Fabricius in some respects, is not entirely free from objection; for there are abundant instances of apterous insects that can only be referred to the other classes, unless we separate the two sexes of many individual species, as we shall have occasion to notice in the articles Formica, Mutilla, and others hereafter. Bruniche, in his system of entomology, has arranged every insect wanting wings, under his apterous order, without regarding those in which one sex has wings, and the other is destitute of them. Thus, for example, the apterous aphid, the female cousc, the neuters of ants, and the apterous mutilla, are separate from their own species, and arranged amongst insects that have no affinity with them; and, to complete the disorder and confusion, the pupa of the gryll, creatures in a state yet imperfect, is included with the apterous order also.

No insect can be referred to the apterous order in the Linnean system, unless both sexes, when arrived at their last state of being, are destitute of wings: although the term apterus is used in a general manner, by entomologists, to signify any insect without wings, when complete, whether it be the females of those winged males that belong to the other orders, or not; and even for coleopterous and hemipterous insects that have a hard, leathery covering or elytra, and have no wings under them. It is often used, by Linneus himself, in this manner, as the following examples fully prove.

Apter a, a species of Blatta; it is apterous, brown, and punctured; posterior margins of the abdominal segments, and legs livid; wings (wing-cases) ferruginous; thanks spinous. Linn. and Gmel.

Apter a, a species of Cicada; apterous and black; wing-cases abbreviated; thanks and antennae pale. Linn. & Gmel.

Apter a, in Ancient Geography, a town of Lyicia.

Apter a, or Apteria, was also a town of the isle of Crete, situated in the western part to the north-west of Cypasia, and having for its port Cillus or Cissura. Near this town, according to Stephan. Byz., the Sirens challenged the Muses to a musical contest, but having been vanquished, they plucked off their wings, and leaped into the sea, whence Faber reports its name; but Eusebius, in his Chronicon, says, that it was so called from one Aptera, king of Crete, the supposed founder of it. Here was also a temple or chapel dedicated to Venus Urania. This town is now called Ater i a or Palaea Co."
Apeterus, is likewise the name of a species of Hister, of a fulvous colour, and without wings. It is a native of Italy, and described by Scopoli (ent. cory.). Gmelin.

Apeterus, is a species also given to one of the curculiones, Curculio Apeterus, thorax spinosus, impregnated with a cruciform mark; wing-cases dotted with ferruginous brown. Fab. Obt. The Dick is short, legs unarmed, hairy black, and punctured on the belly. It is the Curculio Cruciatus of Degeer, is of a large size, and inhabits the Cape of Good Hope.

Apeterus is, lastly, a species of Cimex found in Europe. It is variegated with red and black; elytra red with two black spots; no wings. Fab. and Gmel.

Ap-Thanes, an ancient term for the higher nobility in Scotland. See Thane.

Aptitude, from aptus, fit, the natural disposition any thing hath to serve for such or such a purpose. Thus oil hath an aptitude to burn, and water to extinguish fire.

Aptitude, or Aptness, is often used in speaking of the habits of the mind, for a promptitude or disposition to learn things with ease and expedition.

In which sense aptness amounts to the same with what the Greeks call aptes, and the Latins bene indoles, and we sometimes doctibly.

Chariton divides aptness into three parts, viz. acuteness, sagacity, and memory.

Aptote, derived from priv. and απτειν, cujus, in Grammar, a noun indeclinable, or which is without any variation or case. Such are the words fats, nasis, &c.

Apuleius, Lucius, in Biography, a Platonic philosopher, was born of a respectable family at Madura in Africa, and lived in the 2d century, under the Antonines. He prosecuted his studies at Carthage, Athens, and Rome; at which latter place he acquired the knowledge of the Latin tongue without a master: and of these studies he gives the following curious account. "Our first cup of knowledge, which we receive from the hand of the teacher of letters, removes entire ignorance; the second furnishes us with the learning of the grammerian; the third arms us with the eloquence of the rhetorician; and as much as this is drunk by most persons: but at Athens I drank other cups from the delectful fountain of poetry, from the clear stream of geometry, from the sweet waters of muse, from the rough current of dialectics, and from the necerous but inexhaustable deep of universal philosophy." In the early period of life he spent his patrimony, which was considerable, in acts of liberality to his instructors and to the indigent, and in his travels, which he undertook for the acquisition of knowledge, and chiefly for obtaining information concerning the religious opinions and ceremonies of different countries. With this view he obtained admission into their several mysteries; being initiated, in Greece, into several solemn rites; and devoting himself, at Carthage, to the worship of Aesculapius, their tutchary divinity, and performing the honourable office of Antiltes, chief conductor of the ceremonies, in the college of his priests. Upon his return to Rome, his patrimony was so completely exhausted, that he was said to have pawned his clothes in order to defray the expense of the inaugural ceremonies of his introduction into the fraternity of Osiris. In order to gain a subistence, he assumed the profession of a pleader, from the exercise of which he derived considerable profit; but with a view of more speedily repairing his fortune, he married Pudentilla, a rich widow of Oea, whose principal attraction was her wealth. This connection involved him in a lawsuit with the brother of her former husband, who charged him with employing magical incantations to gain her affection: but he found no difficulty in proving to the satisfaction of his judges, that the only witchcraft by which he accomplished his purpose were the attractions of his person. The apology which he delivered on this occasion is still extant, and is much admired. In consequence of this unfounded accusation, and without any other evidence, Apuleius was ranked among the professors of magic; and after his death miracles were ascribed to him, which were placed in competition with those of Jesus Christ. Accordingly, Laërtius, in the beginning of the 4th century, expressly states his opinion that the author whom he confutes, had emitted Apuleius, of whom so many wonderful things were reported; and Augustine, in the fifth century, was requested by Marcellinus to exert his utmost efforts in refuting those who falsely affected that Christ did nothing more than was done by other men, and who produced their Apolitians, Apuleus, and other matters of the magic art, whose miracles they maintained to have been greater than his. Apuleius feems, indeed, to have been no mean proficient in those arts of imposition, which he had learned from priests of different countries; but the idle report above-mentioned was the only ground of the opinion circulated after his decease, that he professed or exercised miraculous powers. This opinion, probably, originated in an absurd misapprehension of his fable of the "Golden Aes," for true history. The work is a fictitious romance, in which a Milawian fable, on the metamorphosis of Lucius into an aë, intended by Lucius of Patras, and abridged from him by Lucian, is enlarged and embellished. Although there be no sufficient evidence that Apuleius pretended to work miracles, and for inftituting any comparison between him and Jesus Christ, yet it is not improbable that in some passages of the fable of the golden aë, he intended to ridicule the Christians; and bishop Warburton was per- haps, right in his conjecture, founded on a passage in Apuleius's Apology, that Lemius, the brother of Pudentilla's first husband, who professed him for magic, was a Christian. But there seems to be no sufficient ground for the supposition of this learned writer (see Div. Leg. b. iv. § 4.), that the design of the fable of the golden aë was "to recommend the Pagan religion as the only cure for all vice in general." The author himself calls it a Milawian tale, and a Greek fable; and the ancients always so understood it. Mosheim and Lardner have examined the hypothesis of Dr. Warburton, and urged against it objections that are unanswerable. The true character of this work seems to be that which Barthius and Bayle have given it, viz. "that it is a perpetual satire on magical delusions, the tricks of priests, and the crimes of adulterers, thieves and robbers, committed with impunity." This work was published with large notes by Beraldis, at Venice, in 1504, 2o.; reprinted at Paris, in 1510, folio; and in 1536, 8vo. The beautiful Epitome to it, intituled, "The Loves of Cupid and Pufhe," has been repeatedly translated into various languages. The Apology, or "Oratio de Magia," was published separately by Catusbon, in 1594, 4to.; and by Leyden, in 1608, 8vo.; and by Priceus with notes, &c. at Paris, in 1657, 8vo. In philosophy, Apuleius wrote a treatise, "De habitudine Titanum et naturae Polum Philosophi," in 2 books: the first on the speculative doctrines of Plato; the second on his morals; and the third on his logic. He also wrote a Latin translation of Aristotle's treatise, "De Mundo," an oration "De Deo Socrates," d'feulling the question concerning his demon; and a work intituled, "Florida," which, though rather rhetorical than philosophical, serves in many particulars to illustrate the history of philosophy. Another botanical work, intituled, "De Herbis, five de nominibus ac virtutibus Herbarum," has been ascribed to Apuleius; but
but Johnson, the translator of Gerard, supposed it to be a translation of a Greek writer of the 8th century. Fabricius, however, thinks that this is an improbable conjecture. The first edition of the works of Apuleius was printed at Rome under the care of Cardinal B. fariion, in 1469, folio; they have since passed through various other editions, as those of H. Stephens, in 1585, 8vo.; of Elmeunorilu, at Frankfort, in 1621, 8vo.; of Schwarz, at Leyden, in 1624, 12mo.; "Variation" edition, at Gouda in Holland, in 1656, 8vo.; and another, "In Usum Delphini," vol. 4to. at Paris, in 1688. Apuleius by his writings ought to be claffed among the wis rather than the philosophers of his age. His writings, the view of Plato's doctrines excepted, are too folid and ftropic, and in many parts too boofe and wanton, to comport with the gravity of philosophy. Fabr. Bib. Latin. lib. iii. c. 2. tom. ii. p. 17. Gen. Dict. London's Works, vol. vii. p. 459-463. Brucker's Hist. Philo. by Enfield, vol. ii. p. 53.

APULIA, now Puglia, in Ancient Geography, denoted that large district of Magna Graecia in Italy, which extended along the Adriatic sea from the river Fronto or Fronto to the north-west, as far as the cape Japygium to the south-east, and comprehending Daunia, Peucettia, and Messapia. Its boundaries were, on the north and east, the Adriatic sea; on the south, Sinus Tarentinus, or the gulf of Tarentum, and part of Lucania; and on the west, Samnium. The principal mountains were, Garganus to the north, and Vultur to the south: its chief rivers were, Fronto, Aufidus, Celurus, and Bradanus; and its principal cities were, Tarnum, Apulum, Spito, Arpi, Luceria, Aequum, Venenum, Acheronia, Canumutin, Butantum, and Barium; and Mepapa, eastwards, Brandumus, and Hydruntum; and in the gulf, Tarantum and Callipolis. M. Fretet supposes that the Apulians were a party of the Liburni, of Illyrian origin, who penetrated into Italy about the 6th century before Christ, and established themselves between the Alps and the river Atheus, whence they proceeded to that part which the Romans called Apulia and Japygia.

APULIBAMA, in Geography, a jurisdiction of South America, confiding of millions belonging to the Franciscans, subject to the bishop of Cufo, 63 leagues from that city, in the empire of Peru, and comprehending seven towns of converted Indians.

APULUS, in Entomology, a species of Sphinx that inhabits Syria. The wings are indented; anterior pair fulvous, with two golden-colored spots; posterior wings white, antennae feathered. Fabricius and Gmelin.

APURIMA, or APURACAE, in Geography, a very rapid river of South America, rising near the town of Arequipa in Peru, on the west of the Great Lake Tiahca, S. lat. 16° 33' and running into the Ucayali. The Apurima, in the map of La Cruz, appears to be the original and proper river of the Amazon, and forms the remotest branch of the Ucayali, which must be regarded as the ancient or genuine Maranon.

APURWACA, or APURCA, a river of South America, in Guiana, which is one of the most considerable rivers in the country.

APUS, in Astronomia, a constellation of the southern hemisphere, placed near the pole, between the Triangle and the Chameleon, supposed to represent the bird of paradise.

The apus is supposed to be one of those birds called opodes, as having no feet.

The stars contained in this constellation, according to Sharp's catalogue, annexed to the British, are eleven; in Bayer's charts, twelve; but more numerous in La Caille's catalogue. The principal star is of the 5th magnitude; and in 1750, its right ascension was 213° 32' 45", and its southern declination 77° 57' 6".


The synonymous terms for this creature are numerous. It is the binocerus cauda bifera of Geoffroy; binocerus (palustris) ocults superis, telta po
de

sharp's river

fulvous, in

the Good Hope, and Carolina in North America. Swifts are almost constantly on the wing; they fly higher and with more rapidity than the swallows, and never associate with them. They fly about, and if by accident they should fall upon the ground, raise themselves up again with great difficulty. They are said to avoid heat as well as cold, and therefore remain in their holes in the daytime, and fly chiefly in the morning and evening in search of prey; their nests are built in elevated places, such as lofty steeples and high towers; the nest is composed of a variety of materials, as dry grass, moss, hemp, shreds of flax, linen, gauze, feathers, and other light substances. They lay five white eggs, which are rather of a longish form; the young are hatched about the latter end of May, begin to fly about the middle of June, and shortly after the nests are abandoned. Swifts begin to assemble, previously to their departure, early in July; their numbers daily increase, and large bodies of them appear together, they soar higher in the air, with fluttering cries, and continue at times to assemble together in greater numbers till the beginning or middle of August, when they leave the island of Britain altogether.

APUTASY, in Botany, a name given by the people of Guinea to a tree, a dejection of which is in great use among them for wafting the mouth to cure the fever in the gums, and preserve the teeth. Phil. Trans. N° 257.

APYCN, in the Ancient Music, was used for such chords or sounds of the scale as could never enter the psalms. They were fixed, or stabiles.

APYCNON, from a, and πυκνος, non sphe'minos, rarun. in the Ancient Music, was applied to those two conjunct intervals of a tetrachord, which taken together were greater than the third.

This happened only in the two diatonic genera.

APYREXOS, in Botany, properly signifies without kernels.
**AQU**

**APRYXOY**, formed of the privative *a*, and *εψε*, *εγνε*, *εκε*, in *Medicine*, the intermission of a fever, or ague.

**APYR0IL**, in *Antiquity*, a denomination given to *altars* whereon sacrifice was offered without fire.

In which sense, the word *flamis* contradistinguished from *empyrion*.

**APYROMETALLOM**, in *Metallurgy*, a name by which some authors have called gold, from its refining the force of fire.

**APYROUS**, in *Chemistry*, is a word applied to denote that property in some bodies, by which they refit the molt violent *fie*, without any sensible alteration.

**AQUA**, in *Natural History*, *Physics*, *Chemistry*, *Medicine*, *Water*, *Scic., which see.

The word is Latin, and supposed to be compounded of *α* and *qua*, *q. d.*, from which; alluding to the opinion that water is the basis, or matter of all bodies.

**Aqua forte**. The workers in metals, &c. distilling two kinds of *aqua forte*, the double and single, or prima and secunda; the former of these is common nitrous acid, the latter is nitrous acid distilled with an equal bulk of water.

**Aqua marina, Aqua marina**, in *Mineralogy*. See *Beryl*.

**Aqua regia, or Aqua regalis**. This is a combination in various proportions of nitric and muriatic acids. It was formerly known by the name *aqua regia*, from its being at that time the only acid capable of dissolving gold. In the new nomenclature it has attained the appellation of Nitromuriatic acid.

**Aqua succinea**. This is nothing else but *aqua forte*, distilled with much pure water. It is employed in several arts, to clean the surface of metals and of certain bones, and for various other purposes.

**Aqua sulphae, sulphur water**, formerly called *gas sulphur* by Van Helmont, is at present known by the name, of liquid Sulphureous acid.

**Aqua vitae, water of life, eau de vie of the French*, *usquebaugh of the Irish*, *usbyliae of the Scotch*, is a name familiarly applied to native distilled spirits. Hence grape wine being the material from which the common spirits are moly procured on the continent, the French *eau de vie*, the Italian *acqua vitae*, the German *brandwein*, are strictly synonymous, and correspond to the English word brandy. But fermented barley, rye, &c.; being the material made use of in Scotland, Ireland, Holland and England, the terms *usquebaugh*, *whisky*, and *Hollands*, are more properly synonymous with the English *Malt spirit*.

**Aqua, in Pharmacy**, is a term prefixed to a variety of liquid preparations, in which water is the principal liquid vehicle. Thos. are of two kinds, one the *distilled waters*, consisting of water impregnated with the medicinal virtue of various vegetables, through the medium of distillation; and the other kind is simply a solution of various saline substances, in known proportions of water, to ensure a greater accuracy in prescription.

We shall briefly notice the several aqueous preparations which are either actually in use, or have acquired a certain celebrity.

**Aqua distillata, Pharm. Lond.** *Aqua distillata*, Ph. Edin. Simple distilled water. To prepare this, any quantity of spirit *g* water is to be distilled in clean *vials*. The first portions are to be rejected, and the process continued, till about two thirds are distilled off, which are to be kept for use in clean glasses.

No other water but distilled is allowed by the college to be used in the aqueous preparations. It is particularly requisite in some of the saline solutions, as, for instance, in

distilled waters, but milky with pure or river water.

**Aqua distillata, P. Lond.** *Aqua distillata*, P. Edin. The distilled waters of Pharmacy.

The general rule for preparing these waters is to put the plants, or parts of plants employed, into a tinned copper still, to cover them with water, and to distil it off with a gentle heat, as long as the liquor retains sufficient flavour of the plant. The process must be stopped before all the water is evaporated, otherwise the plant would be burned, and would give a disagreeable burnt taste to the liquor. See the articles *Distillation*, *Springs distilled*, and *Oils essential*.

The number of plants submitted to distillation by former pharmaceutical chemists, is almost endless; and in the older pharmacopoeias, we find numerous compound waters made of ingredients, many of which are either inert in themselves, or whose virtue is not capable of uniting with water through the medium of distillation. Of this kind are the daily, buglofs, water-cress, &c. which have been prescribed for distillation; but in the present pharmacopoeias, all these useless materials are omitted, and those only are retained that will give some sensible flavour or smell to water distilled of them.

The following are retained at present. *Aqua anbii* (distilled water of dill)—*cinamomo* (or true cinnamon)—*faunefol* (or fennel)—*menthe piperiti* (of peppermint)—*mentha fariea* (of peppermint)—*pimento* (of allspice)—*pulvfr* (of pennyroyal)—*ro"* (of roe leaves)—*cortis limonum* (of lemon peel)—*cortis aurantium* bialpalmum, (of Seville orange peel)—*caffia lignes* (or cafea cinnamon).

About a pound of the dry barks and seeds, and a pound and a half of the fresh plants, are sufficient for a gallon of the distilled waters; but three or four pints of water more must be employed to prevent burning, and to allow of that quantity to be distilled off.

It should be remembered that the term *distilled water* is now strictly confined to those preparations in which no other liquid than water is employed to extract the virtue of the plant; but formerly it was extended to those that were prepared with a mixture of ardent spirit and water, or even with pure spirit. Thus the *aqua lavendula* (lavender water) is a spirituous water, prepared by distilling a mixture of spirits of wine and water from the lavender.

A few of the most celebrated distilled waters or spirituous waters, may be mentioned.

*Aqua asperlitera, plaque water*, is prepared by distilling the roots of matherwort (*imperatoria*), the seeds of angelica and elder flowers, in French brandy.

*Aqua Regia Hungaria, Hungary Water*. The genuine Hungarian water is a pure spirit distilled from the roemany, and strongly sected with the rich perfume of this aromatic plant. The French is reckoned the best.

*Aqua odorifera, honey water, eau de miel*. This is a compound aromatic spirit, prepared by distilling spirit of wine with honey, coriander seeds, wildoese, cloves, nutmegs, lemon-peel, floxar, benzoin, to which are added spirituous roe-water, and orange-flower water.

*Aqua Vulnaria, Arqueolysate Water*, is a spirit prepared from a great variety of aromatic plants, such as thyme, origanum, balm, lavender, roemany, &c.

The reader will find the recipes for the above-mentioned waters, and a great number of others (many of which are now obsolete) in *Beauvais Elements de Pharmacie*.

The medicinal virtues of the distilled aromatic waters and spirits have, perhaps, been much over-rated, and numerous distinctions between them with regard to their effects, have been made, without much foundation.

All of them are cordial and stimulating, and as such have

4 A 2 con-
considerable efficacy in sudden fittings, sickness, and languor; but the difference of effect between the impure aromatic and the limpid waters is so great, that much of the virtue of the latter is attributed to the aromatic spirit. They are largely used in medicine; and from their agreeable flavor and fragrance, they will conceal the nauseous taint and smell of many of the most unpleasant drugs. The consumption of the fragrant aromatic spirits is perhaps still greater, as perfumes for the toilet; and the flavoured spirits, more than all, as elixirs and cordials.

The other kinds of waters in pharmacy are simple solutions of various salts, as we have already mentioned. The following are retained in the London and Edinburgh pharmacopoeias.

*Aqua aluminia composita* (formerly *Aqua aluminia Batanea*), is a solution of half an ounce of alum, and half an ounce of vitriolated zinc, in two pints of water.

*Aqua cupri ammoniaci* (formerly *Aqua saprophirina, or aqua caelestis*), is prepared by mixing one dram of nitrate of copper with a pint of lime water, and suffering them to stand in a copper vessel till the solution has acquired that beautiful blue colour by which it is distinguished. The same effect takes place in glass vessels, if some thin pieces of copper are added. This preparation is a very weak solution of copper in the caustic ammonia, which is separated from the sal ammoniac by means of the lime water. It is used as a gentle gallic in surgery, and it also forms a conspicuous ornament to the druggist’s shop. See Copper.

*Aqua lithargyri acetae composita*, is a mixture of two drams of the aqua lithargyri (or Gouldard’s extract), with two pints of distilled water, and two drams of proof spirit of wine.

*Aqua zinchi vitriolata cum camphora*, is a solution of half an ounce of vitriolated zinc, in two pints of distilled water, to which half an ounce of camphorated spirit is added, and the whole filtered, to separate most of the camphor which is precipitated by the mixture. Enough of the camphor remains to give its strong smell to the solution.

*Aqua ammonica* and *Aqua ammonica pura*. See *Ammoniacal preparations*.

*Aqua ammonica acetate*. See *Acetate of Ammonia*.

*Aqua kali preparati* (formerly *lithium tartari*), is a saturated solution of carbonate of potash in water, made by the spontaneous deliquecence of this alkaline salt, when kept for some time in a molasses vessel. *Aqua kali puri* (formerly *lithium fasanarium*), is a solution of potash made caustic by means of lime. See Potash.

*Aqua caesi, lime water*. See Lime.

*Aqua phageanum*. A preparation often used in surgery, is a solution of half a dram of corrosive sublimate of mercury, in one pint of lime water. The lime water here decomposes the mercurial salt, and makes a turbid brick-colored liquor, of great efficacy as an epharmac in foul wounds or obliterating ulcers.

*Aquæ Minerals*. See *Waters Mineral*.

*Aqua*, or *Aqua*, in *Geography*, a province of Africa in Cyrenaica, on the Gold Coast, bounded on the south by Pentin, on the north-east by Dinikira, and on the west by the river of Chama, or St. John.

*Aqua* from the lake of that name, about 14 miles from Rome, near the Claudian way, was a stream of water brought to the city, and entering it at the porta Esquilina, now the gate of St. Laurence. It was not fit to drink, and served merely to water gardens, and to supply the Nannachite.

*Aqua crebra* in *Ancient Geography*, a river which passed by the villa of Cicero at Tusculum, supposed by Cluver and M. D'Auville to be that which is now called Maranna: but the able Chappy is of opinion that those were different rivers.

*Aqua Julii*, a river about 12 miles from Rome, in the Via Latina, brought by Agrippa to Rome during his residence, A. U. C. 721. Its source was called *Cepoi Julii*, and it is now known by the name of *Capo d'Aqua*. It enters the city near the Esquilina gate, and had its name, according to Frontinus, from one Julianus, who discovered the spring that finances it.

*Aqua Miliaris*, a stream of water which was conveyed through a considerable distance underground, near the Tiber. This was also called *Aqua flavia*, and is said to have been first brought to Rome by the praetor Q. Marcius, from a spring near the Valerian way, upwards of 50 miles distant from the city, which it enters near the Esquilina gate. This was, and still is, reckoned the best water for drinking in Rome.

*Aqua Paulina*. See *Aquaeduct*.

*Aqua Tepula*, a river formed by the union of several streams, which had its source about ten miles from Rome, in the Via Latina, and was conveyed thither by Agrippa; now known by the name of *Depuri*, near Praefate.

*Aqua Virginis*, a stream of water; so called from a country girl’s frowning the spring to some soldiers who were ready to perish with thirst; which enters Rome at the gate Pinciana, and was brought thither by Agrippa, A. U. C. 735. At present it issues from the fountain in the Piazza di Spagna, which represents a slip, and from that of Trevi, so called from the Trivium, where three streets meet.

*Aqua Viva*, a place in Etruria, north of Rome.

*Aqua*, a small place in Brutium, near the sea; north-east of Scylla.

*Aqua*, baths of mineral waters in Mauritania Caesariana; mentioned by Ptolemy, and placed by Antonini in his itinerary, 25 Roman miles from Casaraca. The city was once a Roman colony and episcopal see.

*Aqua Caldas*, a small ancient town situated in Hispания Tarragonensis.

*Aqua*, a small place of Italy, in Pecenum, south-west of Aculum.

*Aqua Alba*, a town of Africa in Bizzacium; also a town of Africa, in Mauritania Setifensis, which had been an episcopal see.

*Aqua Angitae*, a small place of Italy, in Brutium, upon the western coast.

*Aqua Apollinaris*, a place of Italy, in Etruria, between Tarquinii on the north-west, and Care on the south-east.

*Aqua Augulis*, or Tarbellae, a city of Gaul, in Comagiana, and capital of the Tarbelli. It is now *Aque*, or *Dax*. See *Aces*.

*Aqua Billicus*, Vasserblitch, a town of Gaul, belonging to the Sunici; and placed by Martin south-east of Orolunnum, and west of Angulfia Treverorum.

*Aqua Bilbliana*, Bilbliana Aemilia, a famous place of Hispania Tarragonensis, between Bibernis, and Anacum to the west.

*Aqua Bormaetae*, Bourbon-l’Archambault, a place of Gaul, belonging to the Bituriges Cubi, in Aquitania prima, between Tumcunicum to the north-west, and Sitilia, belonging to the Boii, to the east.

*Aqua Borrominis*, Bourbonnes les Bains, a place of Gaul, belonging to the Sequani, between Andometurum, or Lingones, to the west, and Dittatium to the east.

*Aqua Calienes*, a place of Gaul, belonging to the Aveni, east southwards.

*Aqua Galles*, Bagni di Ballicano, baths of Italy, three miles from Pulsone.—Allo, a town of Africa, in Numidia Propria.
Propria, wholly destroyed:—also, *Aguae-Petrae*, a place of Gaul:—also, Bath in Somerethini:—also, *Calida Cilinarum*, a town of Hispamia Tarragonensis, north of Barcino, belonging to the Laetaniti:—also, *Calida* or *Tibiltamine*, in Africa, about ten leagues south-west of Hippo Regius, now called Hamam, or the baths, lying to the east of the Hamam-Mekkouteen, on the north side of the river Sciboufe, in the district of the Bookalwan, of the province of Constantina:—also, *Calida Colonia*, now the Hamam or the baths of Mereega, in the African province of Trencha, eight miles east-north-east of Mahana, between the river Sheliff and the sea; the largest and most frequented of these (says Shaw, *Travels*, &c. p. 50), is a basin of 12 feet square, and four deep; and the water, which bubbles up with a degree of heat force tolerable, after it has filled this cistern, pales on to a much smaller one, which is made use of by the Jews, who are not permitted to bathe in company, or in the same place, with the Mahometans; retorted to by a great concourse of people in the spring, the season of these waters, which are accounted very efficacious for curing the jaundice, rheumatic pains, and some of the most inveterate diseases: near this bath are the ruins of an old Roman town, and tombs and coffins of donatus; the rose of an unusual size:—*Calida, Pilica*, a place of Gaul, south of Vorogum, and north-east of Angulfometum, or Avernii.

*Aqua Cordana*, a place of Etruria, north-west of Core.

*Aqua Cilinorum*, a place of Spain, south-east of the river Iria Flavia.

*Aqua Convenarum*, Cophina according to M. D'Anville, south-east of Turba and north-west of Logunum, or Convena. Some authors have assigned its situation to that of the present Bagneres; but this does not correspond to the measures given in the Itineraries.—*Convenarum*, or *Onciforum*; coming a town of Gallia Narbonensis.

*Aqua Cumana*, baths near Cumas in Italy.

*Aqua Caetilia*, Pozzo Rutigena, a lake of Italy, in the country of the Sabines. Pliny, Seneca, and Varro report, that in this lake there was a moving island, and the latter says, that it was the centre of Italy, Vespianus used these waters every summer, and died in this place. By some they are called *Aqua Sabina*; and by Strabo, *Aqua Caetilia*.

*Aqua Dura, Alcalá del Río*, a place of Spain, in Bética.

*Aqua Flavia, Chieres*, a town of Hispamia exterior, belonging to the Callai, and situate to the north-east, in the interior part of the country. Trajan built a bridge on the river now called Tamaga, the ruins of which indicate its former grandeur.

*Aqua Helvetiae, Badon*, a town of Gaul, belonging to the northern Helvetii, between Vindomila to the well and Vitodurum to the east.

*Aqua Latiniatis, Sarum*, a town in the island of Sardinia.

*Aqua Leo*, a town of Spain, at the mouth of the Minius.

*Aqua Meron*, supposed to be the lake called by Josephus Samsononitis, in Upper Gallice, into which the river Jordan falls before it arrives at the sea of Genareth. Here Jabin, king of Hazor, encamped, when he was defeated by Joshua. See Josh. ch. xi. 5.

*Aqua Neapolitana*, a town of the island of Sardinia.

*Aqua Nera*, or *Nera*, *Nera*, a place of Gaul, belonging to the Bituriges Cubi, and situate between Mediolanum to the north-east, and Castalia to the south-east.

*Aqua Nigerii*, or *Nilucii*, *Roman-Lains*, a place of Gaul, belonging to the Axel, south-east of Durtum, and west of Tuchonum.

---

*Aqua Nuphis*. See *Aqueus Sibari*.

*Aqua Origenis*, a place of Spain in the country of the Callai, upon the Minius, north-east of Tyde.

*Aqua Pannonica*, baths of Aquitania, now called Baden.

*Aqua Paustris*, a place of Italy, in Etruria.

*Aqua Patavina*, baths in the territory of Venice, near Padua, called *Fontes Aquae* by Livy and Martial, now *Bagni d'Asso*.

*Aqua Pisanæ*, a small place of Etruria, north-east of Pisa.

*Aqua Populonae*, a small place of Etruria, between Sabro to the south-east, and Manlius to the north-west.

*Aqua Querquernae*, a place of Spain, belonging to the Callai, between *Aqua Origenis* and Nomentana.

*Aqua Quintanae*, a place of Spain, in the country of the Callai, south-east of Lucus Augusti.

*Aqua Regia*, a town of Africa, situate some miles south of Turzo; the ruins of which still remain.

*Aqua Regia*, baths of Epirus, near Aerocerasium.

*Aqua Sabina*, a famous place in Italy, three miles from Rome. It was the see of a bishop, suffragan to the archbishop of Carthage.

*Aqua Segresta, Ferrabres*, a place belonging to the Senones, between Genabum to the north-west and Agidium to the north-east;—also *Segresta, Affluat*, a place of Gaul belonging to the Segoured;—placed by M. D'Anville near Liger, and south of Forum Seguninorum.

*Aqua Sextilia, Aix*, a town in Gaul, in Narbonenensis Secunda, to the north of Mailla. See Aix.

*Aqua Sicula*, probably Sib比例 a place of Gaul, situated, according to M. D'Anville, south-east of Tolofa, and near it, north-east of Vernol.

*Aqua Statiuor*, or *Statilorum*, a town in Italy in Liguria, now *Aquae*, in Montferat.

*Aqua Tamarina*, a place of Africa in Bizaecium, now called El-Hammah of Gabs, i.e. the baths of Gabs, or Tatapae. These baths are sheltered from the weather by low thatched hovels; and their basins are about the size of those at Mereega. See *Aqua Caetilia*. One of these baths is called the bath of the lepers, and below it the water flages and forms a pool; the same, perhaps, with the lake of lepers, mentioned by Leo.

*Aqua Tauri*, hot baths of Etruria in Italy, three miles from the sea, said to be discovered by a bull, whence their name; now *Aquapendente* in Orvieto.

*Aqua Veconia*, a place of Spain, south-east of Gerunda.

*Aqua Volaterrana*, a place of Italy in Etruria, south of Volaterrana, and on the other side of Cecina.

*Aqua et ignis interdicto*. See *Interdiction*.

*Aqua balsam*, an ancient name for the clerk officiating under the chief minifier, whose business was to assist him in carrying the holy water. The office corresponding to it at present is that of the parish clerk.

*Aqua balsam*, in the *Civil Law*, a right of drawing water, and carrying it through another's ground.

*Aqua favor*, is used by some to denote the *Hydrophobia*. Phil. Traut. N° 147.

*AQUEDUCT*, *AQUEDUCTUS*, q. d. *aquae, a conduit of water*, in Architecture and Hydraulics, is a construction of stone or timber, built on an uneven ground, to preserve the level of water, and convey it by a canal, from one place to another. Some of these aqueducts are visible, and others subterraneous. Those of the former sort are constructed at a great height across valleys and marshes, and supported by piers and ranges of arches. The latter are formed by piercing the mountains, and conducting them below the surface of the earth. They are built of stone, brick,
brick, &c, and covered above with vaulted roofs or flat stones, serving to shelter the water from the sun and rain. Of these aqueducts, some are single, and others triple; that is, supported on two or three ranges of arches. Of the latter kind are the pont-du-gard in Languedoc, supposed to have been built by the Romans to carry water to the city of Nimes; that of Conflantinople; and that which, according to Procopius, was constructed by Csesar king of Petra, near Petra in Moabitis, and which had three conduits in the same direction, each elevated above the other. Some of these aqueducts were paved, and others conveyed the water through a natural channel of clay; and it was frequently conducted by pipes of lead into reservoirs of the same metal, or into troughs of hewn stone.

Aqueducts of every kind were reckoned among the wonders of ancient Rome; their great number, and the immense expense of bringing water, 30, 40, or 60, and even 100 miles, either upon continued arches, or by means of other works, when it was necessary to penetrate mountains and rocks, may well astonish us. If, says Pline (Hist. Nat. i. 36. c. 15.), we consider the incredible quantity of water brought to Rome for the uses of the public, for fountains, baths, fish-ponds, private-houses, garden, and country-lects; if we repent to ourselves the arches constructed with at great expense, and carried out through a long distance, mountains levelled, rocks cut through, and valleys filled up, it must be acknowledged that there is nothing in the whole world more wonderful. For 440 years the Romans contented themselves with the waters of the Tiber, and of the wells and fountains in the city and its neighbourhood. But when the number of houses and inhabitants was considerably augmented, they were obliged to bring water from remote places by means of aqueducts. Appius commenced this scheme of improvement. See Appian aqueduct. About 37 years after him, M. Curiius Dentatus, who was censor with Papius Curfor, brought water from the neighbourhood of the city of Tibur; and applied towards defraying the expense, part of the sums taken in the spoils of Pyrrhus. After them Lucius Papius, Caius Servilius Cepion, Lucius Longinus Caius, Quintus Marius (who brought water to Rome from a spring at the distance of sixty-one miles), Marcus Agrippa, Augustus, and others, signalised themselves by their noble aqueducts. Even Tiberius, Claudius, Caligula, and Caracalla, though in other respects not of the best character, took care of the city in this useful affair. There are still to be seen in the country about Rome wonderful remains of the ancient aqueducts, some elevated above the ground by arches continued and raised one above the other, and others subterraneous passing through rocks; such is that seen at Vicovaro beyond Tivoli, in which a canal pieces a rock to the extent of more than a mile, and about five feet deep and four broad. With what attention these immense works were constructed, will appear by inspection of the 128th plate in the 4th volume of Montfaucon's Antiquities. At certain distances vents were provided, so that the water which was accidentally obstructed in its passage, might be discharged, till its ordinary passage was cleared; and in the canal of the aqueduct itself there were cavitizes into which the water was precipitated, and where it remained till its mud was deposited, and ponds in which it might purify itself. In the construction of these aqueducts, there was a confideable variety; that cailed the Aqua Marcia had an arch of sixteen feet in diameter; it was constructed of three kinds of stone, and was formed with two canals one above the other: the most elevated was supplied by the waters of the Tiberone, Anio novus, and the lowest by the Claudian water. The entire edifice was 70 Roman feet high. The arch of the aqueduct which brought to Rome the Claudian water was constructed of beautiful hewn stone. This is represented by Pline (Hist. Nat. i. 36. c. 15.), as the most beautiful of all that had been built for the use of Rome. It conveyed the water through a vaulted canal, through the distance of 39 miles, and was so high that it fulfilled all the hills of the city. According to him, and the computation of Budaeus, the charge of this work amounted to 14,850,000 crowns.

This aqueduct was begun by Caligula, and finished by Claudius, who brought its waters from two springs called Cornelius and Curtius. Vespasian, Titus, Marcus Aurelius, and Antoninus Pius, repaired and extended it; it is now called Aqua Felice. The aqueduct that conveyed the Aqua Neroniana to Rome, was built of brick; this, as well as the former, was 62 Roman feet high. The aqueduct that brought the Aqua Marcia into the city was repaired by Agrippa, who laid pipes from it to several parts of the city. The Aqua Marcia, Aqua Julia, and Aqua Tepula (i.e. Aqua), entered Rome in one and the same aqueduct divided into three ranges or foyers; in the uppermost of which flowed the Aqua Tepula, in the second the Aqua Julia, and in the lowest the Aqua Marcia. This accounts for the extraordinary height of this aqueduct, which far surpassed that of any other in Rome. From the ruins of this fabric, which still subsist, and are called "Il castello del Aqua Marcia," it appears to have been a very superb structure. The aqueducts were under the care and direction, first of the cenfors and ædiles, and afterwards, of particular magistrates called "curatores aquarum," instituted by Agrippa, to whom the aqueducts of Rome were objects of particular attention. Metellus was one of these curatores in the reign of Augustus, and Frontinus held the same office in that of Nerva. Augustus caused all of them to be repaired. Procopius reckons only fourteen aqueducts in ancient Rome; but Victor has enlarged the number to twenty. Frontinus, a man of confiderable dignity, and who had the direction of the aqueducts under the emperor Nerva, mentions nine that emptied themselves through 13,594 pipes, of an inch diameter. Vigenece has observed, that in the space of twenty-four hours, Rome received from these aqueducts no less than five hundred thousand hogsheads of water. The three chief aqueducts now in being are those of the Aqua Virginea, Aqua Felice, and the Aqua Paulina. The last was repaired by Pope Paul IV. The second was constructed by Pope Sixtus V, and is called from the name which he assumed before he was exalted to the papal throne. It proceeds from Fabbrina at the distance of twenty-two miles, and discharges itself at the Fontana di Terminii, which was also built at his expense, and consists of three arches, supported by four Corinthian pillars, and the water gushes out through three large apertures. Over the middle arch flanks a beautiful statue of Mofes striking the rock with his rod; over another arch is a buffelo-relievo of Aaron leading the people to the miraculous springs in the wilderness; and the third exhibits Gideon trying his fowlers by their drinking water. Round it are four lions, two of marble, and the other two of oriental granite, said to be brought thither from a temple of Serapis. All the four lions eject water; and on the front is an inscription, importing that this aqueduct was begun in the first and completed in the third year of the pontificate of Sixtus V. 1588. The third was repaired by Pope Paul V in the year 1612. This divides itself into two principal channels, one of which supplies Mount Janiculums, and the other the Vatican and its neighbourhood. It is conveyed through the distance of thirty miles, from the district of Bracciano, and three of its five streams are not inferior to small rivers, and sufficient to turn a mill.
After recounting the ancient and modern aqueducts of Rome, we might mention those constructed by the Romans in other countries: one of the principal of these is the aqueduct of Metz, of which a great number of the arcades still remain. These arcades crossed the Moselle, which is broad and deep; and the copious waters of Gorze furnished water sufficient for the representation of a sea-fight. The water was collected in a reservoir, whence it was conducted by a subterraneous canal formed of hewn stone, and so lofty that a man might walk in it erect; and it then traversed the Moselle, at the distance of two leagues from Metz. This aqueduct was so accurately worked and newly cemented, that it remained in a great degree restored the shores of the most fertile regions. From the arcades that crossed the river, other aqueducts conveyed the water to the baths of Metz, and also to the place where the mattress was exhibited. Of the aqueduct of Segovia, there still remain 150 arcades, consisting of stones of an enormous size, and joined without mortar. These arcades are 102 feet high, and are disposed in two ranges, one above the other. The aqueduct traverses the city, and passes under a considerable number of houses. The famous aqueducts of Constantinople, about six miles from the village of Belgrado, were built by Valentian the first, Celsinus being prefect, and afterwards repaired by Soliman the magnificient, who exempted twelve adjacent Greek villages from the customary tribute of the empire, in consideration of their keeping these aqueducts in repair. Of these the most remarkable are three large and lofty fabrics, built over so many valleys betwixt the adjoining hills, of which the longest has many but few arches, and may possibly (says Chirnloth, Travels, &c. p. 43.) be the entire work of Soliman. The other two have an appearance of a more ancient and regular architecture, consisting of two rows of arches one over the other; and those of the second were enclosed by pillars cut through the middle, so as to render the fabric both passable like a bridge, and useful for the conveyance of water. The more considerable of these two consists of only four large arches, each twenty yards long, and somewhat above twenty high, supported by octagonal pillars of about fifty-six yards in circumference towards the summit. For an inquiry into the nature and construction of the aqueducts of the Romans, see Governor Pownall’s Notices and Descriptions of Antiquities of the Provincia Romana, of Gaul, 1788. The aqueduct built by Lewis XIV. near Maintenon, for carrying the river Bure to Verfaillies, is perhaps the greatest now in the world. It is 7000 fathoms long, and its elevation 2560 fathoms; containing 242 arcades. Vide Phil Trans. Vol. xxvii. 1794. p. 594.

Aqueductus Fallipus, a name improperly given by Fellipus to the bony canal through which the firm portion of the auditory nerve pusses out of the cranium. Aqueductus Sylliss, the iter a tertio ad quartum ventriculum, or canalis medius. See Brain.

Aquamanilis, from aqua, water, and manus, hand, is particularly used, in Ecclesiastical Writers, for a kind of bason or lavar, anciently placed in the vehicles of churches, serving to wash the hands in. Aquamanilis flood contradistinguished from urceolas, as the former was placed under the hands, the latter above them, from whence the water tricked down by a cock. The priest also, after celebrating mass, washed his fingers in an aquamanilis.

In the inventories of church plate, we frequently find mention of aquamanilis, aquamanilla, aquamanilla, of silver gilt, wrought, &c. Du-Cange.

Aquaffo, in Geography, a town of Africa on the Gold-coast, where is held a slave market, to the west of Cape-coast-castle.

Aquafort, a settlement on the east side of the south-eastern extremity of Newfoundland island. N. lat. 47° 10'.

Aque, a water-course.

Aquallus, in Anatomy, a name given by some to the region of the body wherein the trunk terminates, and the thighs commence, and in which also the privities are placed.

The aquallus is the same with what others call pube, others the hypogastrium, pene, inus venter, &c.

Aquilus, in Geography, a town of Africa, in the country of Soko, on the Gold-coast.

Aquambae, a kingdom of Africa on the Gold-coast, bounded on the east by the river Volta, and on the west by Agonna. That part of Aquambae which lies on the coast is called Acre, and might formerly have been an independent state; but it is now dependent and tributary. Aquambae is one of the most extensive and powerful monarchies on the coast of Guinea; its maritime dominions extending twenty miles along the coast, and ten times as far into the inland parts. The territory towards the coast is said to be divided into a number of petty royalties, but all of them subject to the king of Aquambae, who exercises an unlimited and indiscriminate authority over them as his meanest subjects; whence it has become a proverb, that in Aquambae there are only two ranks of men, the royal family and the slaves. The natives of this country are haughty, turbulent, and warlike; and their power is formidable to all the neighboring kingdoms, except Acre. All the tributary nations are previously infested by the incursions of the Aquambaes. It has been thought that the king and his nobility are richer in gold and slaves, and possesses greater treasures than all the kingdoms on the coast of Guinea, at least on the Gold-coast; and the extensive commerce of the maritime part of Acre would be much enlarged, if it were not obstructed by perpetual quarrels between the natives of Aquambae and Acre. The sovereign of the former claims an annual tribute from the latter, the refusal of which excites frequent dillemmas; but the former, feble of the superiority of the latter, diverts the form by creating discord in the councils of Acre, and thus he artfully contrives to preserve the tranquility and trade of his realm. The chief busines of the people is trade, agriculture, and war; and war in this country promotes trade and husbandry, by increasing the number of slaves and prisoners, who are obliged to labour for the Aquambaes, while they are maintained by them. Of course, they are by interest and inclination much addicted to warlike and warlike pursuits. Though the soil is fertile, yet before the expiration of the year, they are in the necessity of seeking supplies from other countries. The Aquambaes, disdaining the employments of fishing and making of salt, leave them to the maritime negroes, who are very numerous, and carry on a great trade with the European shipping. The number of slaves sold here is at least equal to what is disposed of on the whole coast besides, except Anamabo. In time of war, every man fit to bear arms enters the field; and a certain number is detached to cultivate the ground and fell the prisoners, while the rest are engaged in opposing the enemy. Among the fishermen on the coast there are few warriors; for as they live under the protection of the Europeans, and are defended on the north by their more warlike countrymen, they are seldom attacked, or compelled to change the hook and net for the sword and buckler.
buckles. The countries of Lalande, Ninga, and Suko, all of which have ports on the sea coast, are merely divisions of the great kingdom of Aquamboc.

AQUA-NEGRA. See AQUA-NEGRA.

AQUANITE, a river of Cabala, tapped by Sain-\-bottle (Travels in the Two Sicilies, vol. ii. p. 173), both on account of its name and position, to be the Helis, anciently the limit between Schorr and Crton. On its bank the Cretans gained the victory which made them masters of the Schorr principality.

AQUAPENDENT. See AQUAPENDENT. AQUAPEUCC. See AQUAPEUCC. AQUARIA. See AQUARIA.

AQUARIANS, in Ecclesiastical History, a sect, toward the close of the second century, who, instead of wine, used nothing but water in the sacrament. It is said the occasion of the abuse was owing to the perfecution which prevailed in those times: for the Cithrons, being then obliged to celebrate the sacrament in the night, found it necessary to make use of water, lest the smell of the wine should betray them to the heathens. But they afterwards went farther, and actually forbade the use of wine in the eucharist, even when it might be used with safety.

Epiphanius tells us, the Aquarians were the followers of Tatian; and were so called from the word aqua, water, because they abstained wholly from wine, and did not use it even in the eucharist.

AQUARIUS, in Astronomy, the eleventh sign in the zodiac, reckoning from Aries; from which also the eleventh part of the ecliptic takes its name.

The sun moves through Aquarius in part of the months of January and February: it is marked thus, .

The poets feign that Aquarius was Gaetamede, whom Jupiter raffiled under the shape of an eagle, and carried away into heaven, to serve as a cup-bearer in the room of Hebe and Vulcan; whence the name. Others hold, that the sign was thus called, because, when it appears in the horizon, the weather usually proves rainy.

The stars in the constellation Aquarius, in Ptolemy's catalogue, are 45: in Tycho's, 41; in Hevelius's, 47; in Flamsted's Britannic Catalogue, 108.


Eff. gen. char. Cal. bell-shaped; corolla, wheel-shaped, with linear divisions; berry, many, seeded.

Species. 1. Aquaria aculeata. This is a perennial spinous plant, with alternate, ovate, obtuse, petiolate leaves. Jacquin observes that it rifes with a thorny branched stem, to the height of four feet, producing white flowers, and yellow flowering fruit, about the size of a pea. It has the appearance of a solanum, and Swartz thinks that it ought to be considered as one of that genus, with four flaments. A native of the West-Indies, and of South America. Jacq. ed. 2. Am. d. 15.

AQUA-SPARTA, in Geography. See AQUA-SPARTA.

AQUATANTIO, or Aqua d'Acio; a small river of Italy, which runs into the Tiber about a mile from Rome.

AQUATIA, in Middle Age Writers, a right of fishing three days in the year. Du Cange.

In ancient deeds we find divers grants of this privilege of aquaria, or aquatara; sometimes also called aquaria.

In some writings aquaest seems also to have figured a fer, or other service, paid for the privilege of fishing.

AQUATIC, something which lives, breeds, or grows on or about the water. Thus we have aquatic plants, and aquatic animals. Those which grow peculiarly on the banks of rivers, or in marshes, &c. are also called aquatics.

The ancient Romans had also their aquatic or aquatico geomet, da aquantes, called by Catullus, du litorales; concerning whom we have an inscription in Reichenius, Nepve et Fhiss AQUATILIBVS.

To this class belonged the Tritons, the minstrels of Neptune.

AQUATICA, in Agriculture, a term applied to such manure as is formed in consequence of the distillation or decay of various aquatic vegetables, and deposited at the bottoms of ponds, ditches and other similar places. It has been observed by Mr. Marshall, in the Rural Economy of the Middle Counties, that he dressed two lands with the aquatic manure (raised two or three years before out of a fish-pool, and afterwards turned up into a heap of diggins), the rest of the piece being manured with yard dung, the quantity of each about eight loads an acre, the two lands dressed with the aquatic manure were obviously the better crop of turnips; the plants were, he says, not more numerous but larger and cleaner-flumm, and what was remarkable, while the crop of the piece in general was full of eelcot and chick-weed, which rose after the hoeing, the two lands where this sort of manure was applied, were in a manner entirely free from these weeds.

AQUATINTA, in the History of the Acts, a method of producing engravings very much resembling drawings in Indian ink.

The principle of this process consists in corroding the copper with aquafortis, in such a manner, that an impression from it has the appearance of a tint laid on the paper. This is effected by covering the copper with a powder or some substance which takes a granulated form, so as to prevent the aquafortis from acting where the particles adhere, and by this means cause it to corrode the copper partially and in the interfaces only. When these particles are extremely minute, and near to each other, the impression from the plate appears to the naked eye exactly like a wash of Indian ink. But when they are larger, the granulation is more distinct: and as this may be varied at pleasure, it is capable of being adapted with great facility to a variety of purposes and subjects.

This powder or granulation is called the aquatinta grain, and there are two general modes of producing it.

We shall first describe what is called the powder grain, because it was the first that was used. Having etched the outline on a copper plate prepared in the usual way by the coppersmith, (for which fee the article Etching) some subfusant must be finely powdered and fitted which will melt with heat, and when cold adhere to the plate, and refill the action of aquafortis. The fusibants which have been used for this purpose, either separately or mixed, are, alpahum, Burgundy pitch, rosin, gum copal, and gum mastic; and in a greater or less degree all the resins and gum resins will answer the purpose. Common resin has been most generally used, and answers tolerably well; though gum copal makes a grain that refills the aquafortis better. The subfusant intended to be used for the grain must now be distributed over the plate, as equally as possible; and different methods of performing this essential part of the operation have been used by
by different engravers, and at different times. The most usual way is to tie up some of the powder in a piece of muffin, and to shake it against a piece of stick held at a considerable height above the plate. By this, the powder that falls gently, and settles equally over the plate. Every one must have observed how uniformly hair powder settles upon the furniture after the operations of the hairdresser; this may afford a hint towards the best mode of performing this part of the process. The powder must fall upon it from a considerable height, and there must be a sufficiently large cloud of dust formed. The plate being covered equally over with the dust or powder, the operator is next to proceed to fix it upon the plate, by heating it gently, so as to melt the particles. This may be effected by holding under the plate lighten pieces of brown paper rolled up, and moving them about till every part of the powder is melted. This will be known by its change of colour, which will turn brownish. It must now be suffered to cool, when it may be examined with a magnifier; and if the grains or particles appear to be uniformly distributed, it is ready for the next part of the process.

The design or drawing to be engraved must now be examined, and such parts of it as are perfectly white, are to be remarked. Those corresponding parts of the plate must be covered, or flopped out, as it is called, with turpentine, or what is better, maltese varnish, diluted with turpentine to a proper consistence to work freely with the pencil, and mixed with lamp-black to give it colour; for, if transparent, the touches of the pencil would not be so distinctly seen. The margin of the plate must also be covered with varnish. When the flopping out is sufficiently dry, a border of wax must be raised round the plate in the same manner as in etching, and the aquafortis, properly diluted with water, poured on. This is called biting in; and it is that part of the process which is most uncertain, and which requires the greatest degree of care. It is well to mix a part of the aquafortis, has lain for some time in the plate, when printed, would produce the lightest tint in the drawing, it is poured off, and the plate washed with water, and dried. When it is quite dry, the lightest tints are flopped out, and the aquafortis poured on as before; and this is repeated as often as there are tints to be produced in the plate.

Although many plates are etched entirely by this method of flopping out and biting in alternately, yet it may be easily conceived that in general it would be very difficult to flop round and leave out all the finishing touches, as also the leaves of trees, and many other objects, which it would be impossible to execute with the necessary degree of freedom in this manner.

To overcome this difficulty, another very ingenious process has been invented, by which the touches are laid on the plate with the same ease and expedition as they are in a drawing in Indian ink. Fine washed whiting is mixed with a little treacle or sugar, and diluted with water in the pencil so as to work freely, and this is laid on the plate covered with the aquaforting, in the same manner and on the same parts as ink on the drawing. When this is dry, the whole plate is varnished over with a weak and thin varnish of turpentine, asphaltum, or mastic, and then suffered to dry, when the aquafortis poured on. The varnish will immediately break up in the parts where the treacle mixture was laid, and expose all those places to the action of the acid, while the rest of the plate remains secure. The effect of this will be, that all the touches, or places where the treacle was used, will be bit in deeper than the rest, and will have all the precision of touches in Indian ink.

After the plate is completely bit in, the bordering wax is taken off by heating the plate a little with a lighted piece of paper; and it is then cleared from the ground and varnished by oil of turpentine, and wiped clean with a rag and a little fine whiting, and then it is ready for the printer.

The principal disadvantages of this method of aquatinting are, that it is extremely difficult to produce the required degree of coarseness or smoothness in the grain, and that plates so engraved do not print many impressions without wearing out. It is therefore now very seldom used, though it is occasionally of service.

We next proceed to describe the second method of producing the aquatint ground, which is generally adopted. Some refines substance is dissolved in spirits of wine, as for instance common resin. Burgundy pitch, or malle, and this solution is poured all over the plate, which is then held in a resting direction till all the impurities fluid drains off, and it is then laid down to dry, which it does in a few minutes. If the plate be then examined with a magnifier, it will be found that the spirit in evaporating has left the resin in a granulated state, or rather that the latter has cracked in every possible direction, still adhering firmly to the copper. A grain is thus produced with the greatest ease, which is extremely regular and beautiful, and much superior for most purposes to that produced by the other method. After the grain is formed, every part of the process is conducted in the same manner as above described.

Having thus given a general idea of the art, we shall mention some particulars necessary to be attended to, in order to ensure success in the operation. The spirits of wine must be rectified, and of the best quality; what is sold in the shops contains camphor, which would entirely spoil the grain.

Resin, Burgundy pitch, and gum maltic, when dissolved in spirits of wine, produce grains of a different appearance and figure, and are sometimes used separately, and sometimes mixed in different proportions, according to the taste of the artist, some using one substance and some another.

In order to produce a coarser or fine grain, it is necessary to use a greater or smaller quantity of resin; and to ascertain the proper proportions, several spare pieces of copper must be provided, on which the liquid may be poured, and the grain examined before it is applied to the plate to be engraved.

After the solution is made, it must stand still and undisturbed for a day or two, till all the impurities of the resin have settled to the bottom, and the fluid is perfectly lucid. No other method of freeing it from these impurities has been found to answer. Straining it through linen or muslin fills it with hairs, which are ruinous to the grain.

The room in which the liquid is poured on the plate must be perfectly still, and free from dust, which, whatever it falls on the plate while wet, causes the grain to form a white spot, which it is impossible to remove without laying the grain afresh.

The plate must be previously cleaned with the greatest possible care, with a rag and whiting, as the smallest hair or particle of grease produces a break or blemish in the grain.

All these attentions are absolutely necessary to produce a tolerably regular grain; and after every thing that can be done by the most experienced artists, still there is much uncertainty in the process. They are sometimes obliged to lay on the grain several times before they procure one sufficiently regular. The grain proportions of materials do not always produce the same effect, as it depends in some degree upon their qualities, and it is even materially affected by the weather. These difficulties are not to be surmounted but by a great deal of experience; and those who are daily in the habit of practising the art are frequently liable to the most unaccountable accidents. Indeed it is much to
be lamented, that so elegant and useful a process should be so delicate and uncertain.

It being necessary to hold the plate in a flinting direction in order to drain off the superficial fluid, there will naturally be a greater body of the liquid at the bottom than at the top of the plate. On this account, a grain laid in this way is always coarser at that side of the plate that was held lowermost. The most usual way is, to keep the coarsest side for the foreground, being generally the part that has the deepest shadows. In large landscapes, sometimes various parts are laid with different grains, according to the nature of the subject.

The finer the grain is, the more nearly does the impression resemble Indian ink, and the litter it is for imitating drawings. But very fine grains have several disadvantages. For they are apt to come off before the aquafortis has lain long enough to produce the defined depth; and as the plate is not corroded so deep, it forms wears out in printing. Whereas coarser grains are firmer, the acid goes deeper, and the plate will throw off a great many more impressions. The reason of all this is evident, when it is considered, that in the fine grains the particles are small and near to each other, and consequently the aquafortis, which acts laterally as well as downwards, soon undermines the particles, and causes them to come off. If left too long on the plate, the acid would eat away the grain entirely.

On these accounts, therefore, the moderately coarse grains are more sought after, and answer better the purpose of the publisher, than the fine grains which were formerly in use. Although there are considerable difficulties in laying properly the aquafortis grain, yet the corroding of the copper, or biting in, so as to produce exactly the tint required, is still more precarious and uncertain. All engravers allow, that no positive rules can be laid down, by which the success of the process can be foreseen: nothing but a great deal of experience and attentive observation can enable the artist to do it with any degree of certainty.

There are some hints, however, which may be of considerable importance to the person who wishes to attain the practice of this art.

It is evident, that the longer the acid remains on the copper, the deeper it bites, and consequently the darker will be the shade in the impression. It may be of some use, therefore, to have several bits of copper laid with aquafortis ground of the same kind that is to be used in the plate, and to let the aquafortis remain for different lengths of time on each; and then to examine the tints produced in one, two, three, four, five, or more minutes, or longer. Observations of this kind frequently repeated, and with different degrees of strength of the acid, will at length settle the judgment in guessing at the tint which is produced in the plate. A magnifier is also useful to examine the grain and to observe the depth to which it is bit. It must be observed, that no proof of the plate can be obtained till the whole process is finished.

If any part appears to have been bit too dark, it must be burnished down with a steel burnisher; and this requires great delicacy and good management not to make the shade thready; and the beauty and durability of the grain are always somewhat injured by it, so that it should be avoided as much as possible. Those parts which are not dark enough must have a fresh grain laid over them, and be flapped round with varnish and subjected again to the aquafortis. This is called retouching, and requires peculiar care and attention. The plate must be very well cleaned out with turpentine before the grain is laid on, which should be pretty coarse, otherwise it will not lie upon the heights only, as is necessary in order to produce the same grain. If the new grain is different from the former, it will not be so clear nor so firm, but rotten.

We have now given a general account of the process of engraving in aquafortis; and we believe that no material circumstance has been omitted, that can be communicated without seeing the operation. But after all, it must be confided, that no printed directions whatever can enable a person to practice it. Its success depends upon so many niceties and attention to circumstances apparently trivial, that the person who attempts it must not be surprised if he does not succeed at first. It is a species of engraving simple and expedient, if everything goes well; but it is very precarious, and the errors which are made are rectified with great difficulty.

It seems to be adapted chiefly for imitations of sketches, waffled drawings, and flight subjects; but does not appear to be at all calculated to produce prints from finished pictures; as it is not susceptible of that accuracy in the balance of tints necessary for this purpose. Nor does it appear to be suited for book plates, as it does not throw off a sufficient number of impressions. It is therefore not to be put into competition with the other modes of engraving. If confined to those subjects for which it is calculated, it must be allowed to be extremely useful, as it is expeditious, and may be attained with much less difficulty than any other mode of engraving. But even this circumstance is a source of mischief, as it occasions the production of a multitude of prints that have no other effect than that of vitiating the public taste.

Engraving in aquafortis was invented by Le Prince, a French artist, who kept his process for a long time secret; and it is said he sold his prints at first as drawings. But he appears to have been acquainted only with the powder grain, and the common method of stopping out. The prints which he produced are still some of the finest specifc in the art. Mr. Paul Sandby was the first who practised it in this country, and it was by him communicated to Mr. Jukes. It is now practised very generally all over Europe, but no where more successfully than in this kingdom.

AQUATULCO. See AQUATULCO.

AQUAVIVA. CLAUDIUS in Biography, the son of Andrew Aquaviva, duke of Atri in Naples, was born in 1542, and at the age of 25 admitted amongst the Jesuits. In 1581, he was advanced to the office of general of the fraternity, and in the exercise of it was distinguished by his prudence and mildness. He drew up an order under the title of "Ratio Studiorum," printed at Rome in 1588, 8vo.; which much offended the Jesuits, and was suppressed by the inquisition; but it was reprinted in a mutilated state, in 1591. This celebrated has left "Letters" in French and Latin, "Meditations on the 44th and 45th Psalms," and also a treatise entitled "Industria ad curandos animae morbos," printed in 1626, 12mo. Nouv. Dict. Hist.

AQUAVIVA, in Geography. See AQUAVIVA.

AQUEDOCHTON, the outlet of lake Winnipesaukee in New Hampshire, North America, N. lat. 43° 40'; whole waters pass through several smaller ones in a south-west course, and empty into Merrimack river between the towns of Sandwich and Canterbury.

AQUELAOR, one of the Lacadives islands; N. lat. 10° 45'; E. long. 73° 25'.

AQUENSIS COLONIA, in Ancient Geography, the town of Aix.

AQUENSIS, the name of an episcopal see of Africa, in Mauritania Caftrarsis: also, an episcopal see in Bithynia.
AQUENSIUS VICUS, or Aque Grubus, is the ancient name of the present Bagneres.

AQUEOUS, Aqueous, something that partakes of the nature of water, or abounds therewith.

AQUEOUS bath. See Bath.

AQUEOUS humour, in Anatomy, is the front humour of the eye, which occupies the space between the cornea and the crystalline lens, and across which the iris may be considered as floating. See Eye.

AQUETTA, a name for a kind of liquid poison made much use of by the Roman women, under the pontificate of Alexander VII. This poison was prepared, and sold in dropper-ports, by Tophania, or Turpinosa, an infamous woman, who refided first at Palermo, and afterwards at Naples. From her they obtained the name of aqua Tophania, aqua della Toffina, and also acquetta di Napoli. It is said, that she distributed her preparation to wives who wished to have other husbands, and that it was secretly administered in many cases, which rendered the removal of obnoxious persons desirable; and that five or six drops were sufficient for destroying a man, and that the dose might be so proportioned as to operate in a certain time. This woman was imprisoned at Naples, and was living there in 1750, when Keyser visited the city. This traveller says, that since it has been discovered that lemon-juice is an antidote to it, the composition is funk to difference. He adds, that Dr. Branchiatti wrote a book expressly on the remedies and antidotes against these flygian drops, which continued to be privately made and vended at the period above mentioned. (Keyser's Travels, vol. iii. p. 37.)

Tophania (Says Labat in his Travels through Italy, vol. iv. p. 33.) distributed her poison in small glass phials, with this inscription, Manna of St. Nicholas of Bari, under a pretence that it was a miraculous oil which dropped from the tomb of that Saint at Bari in the kingdom of Naples, and that it was effective for the cure of many diseases. Upon being put to the rack, this woman acknowledged her wickedness, and immeasured several ecclesiastics by whom she was protected. She was afterwards strangled. This art of administering secret poison was much practiced in France and Italy about the close of the 17th and commencement of the 18th century. It was communicated by Godin de Sainte Croix, a dissipat-ed young man of respectable family in France, to the Marchioness de Brinvillier, with whom he had intrigues. St. Croix was suffocated in his laboratory, whilst he was preparing his poison; and the Marchioness, whose whole life had been singularly infamous, and who confessed her horrid crimes, was executed at Paris, July 16th, 1676, and afterwards beheaded and burned. Garelli, physician to the emperor Charles VI, who was king of the two Sicilies when Toffania was arrested, in a letter to the celebrated Hoffmann, in 1718 or 1719, says, that the slow poison administered by this wretch to the destruction of 600 persons, was nothing else than crystallized arsenic, dissolved in a large quantity of water by decoction, with the addition, for some purpose unknown to him, of the herb callistatus. Hoffmann. Med. Ration. Syilem. t. ii. p. 2. c. 2. § 17. p. 185. Hala 179. 220. It has been concluded also from the effects produced by the poisons of Toffania and Brinvillier, that they were arfenic mixtures; though some have maintained, that they were composed of opium and cantharides. This mixture is represented as a liquor, no less limpid than rock-water, and altogether inoffident. Its effects were slow and almost imperceptible, and a few drops of it were administered in tea, chocolate, or other dietetic liquid.

AQUI, or Aquita, in Geography, a town and province of Japan, in the southern part of the island of Nippon, near the frasts of Suganar.

AQUIABENSIS, in Ancient Geography, an episcopal see of Africa, in Bizacium.

AQUIDNECK, the ancient name of Rhode Island.

AQUIFOLIUM. See Ilex.

AQUIGUI, or Aquigni, in Geography, a town of France in the department of the Eure, one league from Louviers.

AQUILA, in Astronomy, a constellation of the northern hemisphere; usually joined with Antinous.

The stars in the constellation, Aquila and Antinous, in Ptolemy's catalogue, are 15 in Tycho's, 19 in Hevelius's, 42 in the British catalogue, 71; but in Aquila alone, Tycho reckons 12 stars, and Hevelius 23; the principal star being Lucida Aquila, between the first and second magnitudes. Aquila, in Chemistry, has several significations, according to the interpreters joined with it.

AQUILA alba is a name given to a combination of corrosive sublimate with fresh mercury, called mercurius dulcis.

AQUILA, in Ancient Geography, a river of Scythia, near mount Caucasus.

AQUILA, anciently Aasia or Avella, in Geography, a city of Italy, and the capital of Abruzzo ultra, situated on a hill near the river Pescara; is the see of a bishop, and was once fortified, but now quite dismantled. In 1703, it suffered much from an earthquake, which damaged a great part of the town, and destroyed 24,000 persons, and dangerously wounded 1500; on this occasion, 800 were swallowed up, together with the church, to which they had fled for refuge. The territory of Aquila formerly furnished Italy, almost exclusively, with saffron; but since that plant has been so much cultivated in Lombardy, it has declined in Abruzzo. Aquila is 50 miles N. of Rome, and 93 N. of Naples. N. lat. 43° 15'. E. long. 14° 22'.

AQUILA, in Biography, a native of Sinope, a city of Pontus, flourished at the beginning of the second century, under Adrian, and was employed by him as superintendent of the public buildings, and particularly of the new city called Julia, which the emperor was erecting on the site of the ancient Jerusalem, destroyed by Titus. Here he became a profelyte to Christianity, and was baptized; but his attachment to astrology offended the Christians, and they excluded him from their communion. Disgraced by this treatment, he renounced Christianity, joined the Jews, and became a disciple of the rabbi Akibah. At their request, being previously instructed in the Hebrew language, he undertook, about the year 128 or 129, a new Greek version of the Hebrew scriptures. In this translation, which was very acceptable to the dispersed Jews, and which was read in their synagogues, he proposed to adhere more literally and accurately to the Hebrew text than the Septuagint; but he has been charged, both by ancient and modern writers, with perverting the original text, in order to render his version less favourable to the Christians. On the other hand, it has been alleged in favour of its accuracy and fidelity, that it was not only adopted by the Jews in their synagogues, but mentioned with approbation by many Christian writers, and frequently cited by the Christian fathers, instead of the Hebrew text, which few of them were capable of reading. This version was corrected and improved by Aquila, in a second edition; the public use of which was prohibited, as some have thought, in Justinian's Novella 146, under the title of Adivnrmus; but others have supposed, with greater probability, that this prohibition refers to a distinct work, framed by Aquila, from the instructions of his master Akibah; and containing the traditional institutions of the Jews. Of Aquila's version, some few fragments only are extant. See HEXAPL.

AQUA
Aquileia and Priscilla were natives of Padua, converted to the Christian faith by the apostle Paul. They lived at Corinth, being obliged to quit Rome and remove thither by the edict of Claudius, which banished all Jews from that city; and here Paul lodged with them. When the apostle left this city, Aquila and Priscilla accompanied him to Ephesus. A.D. 56, where they exposed their own lives to danger for preserving him. When the apostle wrote his epistle to the Romans, A.D. 58, they were at Rome, as he distinguishes them in this epistle by his salutations. We find them again at Ephesus, when St. Paul wrote his second epistle to Timothy, A.D. 61; but what became of them afterwards is not known. These early converts were tent-makers; and as they had, probably, a considerable number of servants in their house, who were instructed by them in the Christian faith, they had, by means of these, "a church in their house," wherever they settled.


Aquila, Francesco Farina, an engraver of some eminence, who flourished from 1651 to 1722, was born at Palermo, but chiefly refided at Rome. His engravings are numerous, and many of them celebrated. His style of engraving, in general, is rather neater than that of Pietro, but much inferior in drawing and expression. Strutt.

Aquila, Pietro, an eminent engraver, was born at Palermo, and flourished about the year 1662, and refided at Rome. As a designer and painter, he floured high in the estimation of the curious; but he is more generally, and perhaps more deservedly known, as an engraver. He drew admirably, and etched in a bold free manner, infining his lights and harmonizing his shadows with small dots. His general faults are want of effect from scattering his lights, and what by the artist is called "manner" in his drawing. In all his works he manifests much scientific knowledge. Strutt.

Aquilae Arbor, in Botany, a name given by some authors, to the tree whose wood is the agallochum, or lignum aloes of the ships.

Aquilano, Serapino, in Biography, so called from Aquila in Abruzzo, the place of his nativity, was born in the year 1466; and obtained great reputation as an "improvisator," or extemporaneous maker of verses, which he recited with enthusiasm, and accompanied with the strains of his lute. He was patronized by many Italian princes; and his written poems also gained considerable applause. A collection of his sonnets, elegies, epitaphs, &c. was printed at Rome in 1503, 8vo. The sonnets have obtained the highest reputation, and have preferred them even to those of Petrarch; but the works of Serafino have now sunk into oblivion. He died at Rome in 1500. Now. Dict. Hist.

Aquilanus, Sebastianus, supposed to have taken his name from Aquila, the place of his birth, was professor of medicine at Padua, in the latter part of the fifteenth century. He is one of the early writers on the venerable disease, his account of which "De Morbo Gallico," dedicated to Lewis de Gonzaga, bishop of Mantua, was published, 1489. It now stands first in Lupinus's collection of writings on the subject. He was acquainted with the use of mercury in the cure of the disease, and cautions us against employing it in weak and debilitated habits. His work passed through several editions. He also wrote "Quelio de febre flaginiana," first printed at Basi, in 1537. Alltuc de morbo Gallico, p. 575, and Haller's Bib. Med. Pract.


El. gen. char. Cal. five-cl. Cor. none; nct. pitcher-shaped, half five-cl.; calis oblong; capsule inferior, woody, two-celled, two-valved. Seeds, solitary.

Species. 1. Aquilaria ovata; leaves alternate, ovate, mucronate. This is a large tree covered with greyish bark. Its leaves are entire, smooth, veined, about eight inches long, and fland on short hairy toothed. The flowers terminate the branches, on many-flowered peduncles. A native of the mountains of Malacca and Cochyn-China. The wood of the tree has been long used as a perfum; and was formerly an article of the materia medica, under the name of agallochum, lignum aloes, or aloes wood. This wood in its natural state is white and inodorous. That which pollishes the peculiar aracna for which it is valued, is supposed to be the consequence of a differend process in the tree, resulting the eleganous particles to flagrate and combine into a resin, in the inner parts of the trunk and branches; by which the natural appearance of the wood is altered, so as to become of a darker colour, and of a fragrant smell. At length the tree dies, and when splitten, the resinous part is taken out. The perfumes which this wood affords, are highly esteemed by the oriental nations; and from the bark of the tree is made the common paper which the Cochyn-Chinese use for writing; in the same manner the Japanese make use of the bark of a species of mulberry (manna papryfera). This perfume is said to be useful in vertigo and palsy; given in the form of powder, it is recommended to restrain vomitings and alvine fluxes. To us, however, it seems to contain little else than that camphorous matter common to many other vegetable substances. From its bitter taste, it has the name of aloe, although no otherwise allied to it.

Aquilaria, in Ancient Geography, Loudhursh, a town of Africa, east-north-call of Nini, or Secdy Doude, and south-west of the promontory of My curt. In this place, says Ca far (De Bcl, Civil. l. n. 21), Crito disembarked his troops, which were afterwards cut in pieces by Sabnna. Many frag- ments of antiquities are still extant in this place. Shaw's Trav. p. 88. Aquelegia, in Botany, also called Aquilina (from Aquila, an eagle; the necearies being fancied to resemble an eagle's claws), the plant named cumbolium, from a suppos'd resemblance the same parts of the flower bear to the head of a pigeon (columba), Lin. gen. 284. Schreb. 934. Juss. 234. Gartn. t. 118. Cala, polyandra pentagonia. Nat. order, mult-ij'chias, ranunculaceas. Juss. Gen. char. Cal. none. Cor. petals five, lanceolate-ovate, flat, spreading, equal; neccaries five, equal, alternate with the petals, horned, gradually broader upwards, with an oblique mouth, attached to the receptacle; each produced below into a long attenuated tube, with an obtuse top. Stam. filaments thirty or forty, fabulous, the outer ones shorter; anthers oblong, erect, the height of the neccaries. Fah. germs five, ovate-oblong, ending in fab-
AQUILEA, in Ancient Geography, Aquileia, an ancient and a large city of Italy, situate on the sea coast at the entrance of the Sinus Tergestinus, or Gulf of Trieste, was built, according to Strabo (1. v.), by the Romans, in order to detain the barbarians; and a Roman colony was conducted thither between the first and second Macedonian wars. It was washed, says Pliny (H. N. i.iii. c. 8.), by the two rivers Natifo and Turrus. It was augmented, according to Livy (l. xiii. c. 17.), by 1500 families, by a decree of the senate; and afterwards, as Herodian (l. v. c. 14) informs us, became a celebrated emporium. Julian ascribes its name to the augury of an eagle (aquila) at the time of building it: Voilus deduces it from the abundance of its waters, as if it were "Aquilegia;" but the appellation was more probably derived from aquila, the eagle, which was the standard of the Romans, who had long encamped in this place. Strabo (ubi supra) says, that the harbour, at the mouth of the Natifo, was at the distance of 60 miles from the city, so that ships of burden were towed up the river. This city was of such importance, that it was one of the first places which the partisans of Vespasian took possession of. A.D. 69.

In the year 166, the emperors Marcus Aurelius and Verus wintered there, previously to their taking the field against the Marcomanni; who, having defeated Vindex, the praetorian praefect, in 170, entered Italy, and approached Aquileia. In 228, it was beleaguered by the troops of Maximin, who demolished its suburbs and beautiful vineyards, and employed the timber of the buildings, in the engines and towers with which the city was on every side assaulted. It was defended, however, by the invincible constancy of the citizens, and the army of Maximin was repulsed in repeated attacks; his machines were destroyed by showers of artificial fire; and the generous enthusiasm of the Aquileans was exalted into a confidence of success by the opinion that Bellenus, their tutelar deity, combated in person in the preservation of his devoted worshippers. The Celtic deity, supposed to be Apollo, received, under that name, the thanks of the senate; and a temple was likewise erected to Venus the balm, in honour of the women of Aquileia, who had parted with their hair to make ropes for the military engines. In 432, Attila invaded Italy, and besieged Aquileia with an innumerable host of barbarians. On this occasion, the walls of the city were assaulted by a formidable train of battering rams, moveable turrets, and engines that threw stones, darts, and fire; and the monarch of the Huns employed the formidable impale of hope, fear, emulation, and interest, to subvert this only barrier which delayed his conquest of Italy. Aquileia was, at that period, one of the richest, the most populous, and the strongest of the maritime cities of the Adriatic coast. After an ineffectual siege of three months, Attila was compelled, by the want of provisions, and the clamours of his army, to relinquish the enterprise, and to issue orders for this purpose; but as he rode round the walls, penive, angry, and disappointed, he observed a flark preparing to leave her nest in one of the towers, and to fly with her infant family towards the country. He feized, with the ready penetration of a flatein, this trifling incident which chance had offered to superflution, and exclaimed, in a loud and cheerful tone, that such a domestic bird, so constantly attached to human society, would never have abandoned her ancient feasts, unless those towers had been devoted.

AQU,
devoted to impending ruin and solitude. The favourable
omen inspired an assurance of victory; the siege was re-
newed and prosecuted with fresh vigour; a large breach was
made in the part of the wall from whence thekes took
had taken its flight; the Hessus mounted to the assault with ir-
resistible fury; and the succeeding generations could fearlessly
discern the ruins of Aquileia. "Gibbon's Hist. vol. vi.
p. 122—123.
This place, formerly so rich and flourishing, is now known
only by its ruins; and is reduced into a mean village, whence
the patriarch of Aquileia derives his title: but as the
territory of Aquileia belonged to the house of Auplia,
this house, and also the Venetians, pretended to nominate
the patriarch. However, in 1751, the pope supplanted this
patriarchate, and erected Udine, where the patriarch had
used to reside, into an archbishopric for the Venetians,
and Gorizia, or Goriz, a town of Carniola, into an archbishop-
ric for the house of Auplia. Aquileia is distant 18 miles
S. W. from Goriz, and 20 S. from Friuli. N. lat. 45° 55';
E. long. 13° 30'.

AQUILEIA, Aquilependente, a small town of Italy, in Etru-
ria, S. E. of Florentia. The name of Aquileia has been also
sometimes applied to Forum Julli (Cividale del Friuli),
the more recent capital of the Venetian province.

AQUILICIANUM, or AQUILICUM, in Antiquity, a
fercifie celebrated among the Romans, in time of exccssive
droughts, to obtain rain of the gods.

Dante calls this aquilicina. The pilgrims who officiated at
it were denominated aquilicites, quia aqum elicicabant, because
they brought down water: but where he finds this new or-
der of priests, he does not tell us.

AQUILICER, from aquila, eagle, and fero, I bear, among
the Romans, an ensign-bearer, who carried the standard on
which the eagle was represented.

AQUILINE, something belonging to an eagle. Hence,
aquiline nœs denotes an hooked nose, or such as is like the
beak of an eagle; called also a hawk's nose.

AQUILA, is used by Vitruvius for the north-east wind;
or that which blows at 45° from the north towards the east
point of the horizon.
The poets gave the name aquilo to a stormy wind dreaded
by the mariners.

AQUALONDA, in Geography, a large lake of Africa,
in Ethiopia, at the foot of the mountains of the Ina, on the
confines of Congo and Angola.

AQUILONIA, in Ancient Geography, a town of Italy,
in Apulia, &ituate in the road from Beneventum to Venalis.
It belonged to the Samnites. This is also the name of
another town in Apulia, in the road from Beneventum to
Canfinum, between Aquus Tellerus to the south-west, and
Aeae to the north-east.

AQUILUS, among the Ancients, a dark or dusky col-
our, approaching to black.

Hence some of the heathen gods were called div aquili,
q. d. nigri.

AQUIMINARIS, in Antiquity, a kind of luftral
vessel wherein the Romans carried their holy water for ex-
piation, and other religious offices.

AQUINAS, Thomas, in Biography, a famous scho-
lastic divine, a descendent of the illustrious family of Aquino
in the Terra di Lavora, in Italy, was born at Aquino in
the year 1224. He was sent, at five years of age, for edu-
cation to Mount Caffino, and from thence he was removed to the
university of Naples. Here he acquired that strong pre-
dilection in favour of a retired and studious life, which in-
duced him to enter himself, without the knowledge of his
parents, among the Dominicans, in the order of the preach-
ing friars. His mother was peculiarly solicitous to divert
his design, and wished to obtain an interview with him for
this purpose; but the monks were as anxious to retain him;
and in order to prevent the effect of his mother's persuasion,
removed him from one place to another, that she might have
no opportunity of seeing him. At length, whilst they
were conducting him to Paris, her other sons seized him
and conveyed him to her castle, where he was confined for
two years. Notwithstanding all his mother's importunities,
his purpose was fixed; and for the accomplishment of it, he
left himself from a window by night: and aided by his
Dominican brethren, he escaped to Naples. In the year
1244, he was conducted by the master of the Teutonic
order to Paris; and after some delay there, he removed
to Cologne, and became a disciple of the famous Albert.
Under this eminent preceptor, he was prolific in his applica-
tion, and made great attainments. His lecture, however,
and apparent dexterity, induced his fellow-students to call
him by the contemptuous appellation of the "dumb ox;" but
Albert, more penetrating than they, said, "this ox, if
he begin to bellow, will fill the whole world with his roar-
ing. Accompanying Albert to Paris in 1246, he remain-
ed, as a student in that university till 1248. At length
Aquinas, having made himself master of the dialectics, phi-
losophy, and theology of the age, became, at 24, an eminent
teacher at Paris; and in 1255, obtained the degree of
doctor in divinity. Such was his distinguished reputation,
that he was honoured by the peculiar attention of princes
and of popes. On one occasion, as he was dining with
Lonis IX. of France, called St. Louis, his thoughts were
bustily employed on the objections of the New Manichæans
against the orthodox faith, and striking the table with his
hand, after musing a long time in silence, he suddeuly ex-
claimed, "this is a decisive answer to the Manichæans." Upv'n a visit to Rome, whilst he was in the closet of pope
Innocent IV., an officer brought in a bag of money, pro-
cured by the sale of abolitions and indulgences: "You
fee, young man," said the pope, "the age of the church
is past, in which the fraud, silver and gold have I none." Aquinas, replied, "True, holy father; but the age is
also past, in which the could lay to a paralytic, rise up
and walk." In 1265, he returned to Italy, and was appointed
rector of his order in the Roman province; and he con-
tinued to distinguih himself as a public preceptor in scholastic
theology in several of the chief universities of that country.
He was offered the archbishopric of Naples by pope Clement
IV., but declined accepting a charge so weighty; and when
the university of Paris, at a general chapter of the order
held at Florence in 1272, demanded his return, he was de-
tained by Charles, king of the Sicilies, and appointed pro-
feßor of theology at Naples, with a monthly allowance
of an ounce of gold as his pension. Being summoned to a
general council held at Lyons in 1274, in order to preënt
a book which he had written by order of pope Urban IV.,
for refuting the errors of the Greek church, he was seized,
in his way through Campania, with a violent disorder;
and died in the monastery of Fonta Nova, in the diocese of
Terragina, in the year 1274. After his decease, the whole
western world began to load him with honours. The Do-
minican fraternity removed his body to Touloupe; pope
John XXII. canonized him; Pius V. gave him the title of
"The fifth doctor of the church;" by others he was de-
nominated "the angel of the schools," "the eagle of
divines," and "the universal and angelic doctor;" and the
the vulgar believed that many miracles were wrought at his tomb; and it was said that the soul of Aquinas had passed into Thomas Aquinas. His writings were held in the highest estimation; and his name was assumed, in the next century, by a feéduco, who, under the appellation of Thomists, long occupied the field of controversy with the Scotists, followers of Duns Scotus, in various metaphysical and theological questions.

Notwithstanding all the extravagant praises and honours which were lavishly bestowed on Thomas Aquinas, it is certain, that his learning was almost wholly confined to philosophy, and that he was too little conversant with elegant and liberal studies as not to be even able to read the Greek language. For all his knowledge of the Peripatetic philosophy, which he so liberally blended with theology, he was indebted to the defective translations of Aritotle, which were supplied by the Arians; but he obtained from some unknown person a more accurate version of his philosophical writings. Adopting the general ideas of the age, that theology is but defended by the weapons of logic and metaphysics, he mixed the subtleties of Aristotle with the language of Scripture and of the Christian fathers; and, after the manner of the Arians, framed abstruse questions with out end upon various topics of speculative theology. Upon the whole, his talents and industry, which under better direction might have been usefully employed, were misapplied to subtleties, which tending neither to enlighten the understanding nor to improve the heart, must be pronounced altogether useless. His writings are numerous: but the most celebrated are his "Summa Theologiae," or summary of theology, which was received with great applause, and used as a textbook of high authority in the instruction of youth; of this the second folio, treating of morals, may be read with advantage; and his "Commentaries upon the works of Aristotle." A collection of his works was published, in seven folio volumes, at Venice, in 1492; at Nuremberg, in 1496; at Rome, in 1524; at Venice, in 1544; and at Antwerp, in 1612. The "Summa Theologica," has sepulchrally passed through several editions, as at Cologne, in 1604; Antwerp, in 1644; Paris, 1638. But as neither the matter nor the style of the angelic doctor is much suited to modern taste, his writings have sunk into neglect and oblivion.


AQUINO, Philip, a learned Jew, was converted to the Christian faith, and baptized at Aquino his native place, whence he derived his name. The clergy of France allowed him a pension. Such was his knowledge of the Hebrew language, that he was entrusted with the charge of printing and correcting the Hebrew and Chaldee texts of his polyglot bible. He was the author of several works; but the principal was his "Dictionarium Hebraeo Chaldæo-Thalmudico-Rabbinicum," printed in folio, at Paris, in 1629. His son, Lewis Aquino, was also very learned in the oriental languages, and has left several rabbinical works. His grandson, Antonio Aquino, was first physician to Louis XIV. Nouv. Dict. Hiflor.

AQUINO. Aquinum, in Geography, a town of Italy, in the kingdom of Naples and territory of Lavora; thirteen miles S. S. E. from Sorà. It was the birth-place of Juvenal and of Thomas Aquinas. It was formerly a large municipal town, and a Roman colony; but the emperor Constantine ruined it; and it is now reduced to about thirteen houces. There are some remains of a theatre and amphitheatre, which indicate its former grandeur. N. lat. 41° 32'. E. long. 14° 30'.

AQUIQUIL, in Zoology, the name of a particular species of monkey, called by the people of Bafiel, the king monkey, as being much larger than all the other monkeys. It is the Simia Bearculus of Linnaeus.

AQUITANI, in Ancient History, a people of Gaul, situated between the Garonne and the Pyrenees. Cesar distinguishes the Aquitani from the Celti or Gauls; and in reality, they were a different nation, and derived their origin from Spain. They were distributed in various districts; but that which preferred the name, was situated at the foot of the Pyrenees, where are now found Bearn and the diocese of Auch. The Aquitani were rich, as they possessed many mines, and an extensive commerce both by sea and land; hence they became corrupt and effeminate; and in this state the Romans found them; and though they made many efforts for refitting the attacks of these conquerors, they were not at last compelled to submit in common with the other Gauls.

AQUITANIA, Gallia Aquitana, or Provincia Aquitanica, in Ancient Geography, a considerable province of Transalpine Gaul, Gallia Comata, or Gaul properly so called. Some have supposed that it derives its name from the abundance of waters which the Romans found in this country. Aquitania, in the time of Julius Cesar, was bounded by the Pyrenees and the Garumna or Garonne: Aquinths extended it to the Liger or Loire. From his time it comprehended two provinces, known afterwards by the names of Aquitania Prima and Secunda; to which, in the time of Honorius, was added a third province, which had formerly been designated Novempopulana: Aquitania Prima was bounded on the north by the Aureliani; on the east, by the Senones, Eduli, and Segusiavi, the Helviti, and the Volcii Arecomici; on the south by the Volci Arecomici, the Umbraciini, and the Tolosati; and on the west, by the Nitiobriges, the Petrecioni, and the Pictones. It extended about 84 leagues from north to south, and in its greatest breadth about forty. Its chief city was Avaricum, afterwards Burdigala, and now Bordeaux. Aquitania Secundis, literally towards the sea, had on the north the river Liger; on the east, the Bituriges, Lyonnoves, and Cadurci; on the south, the Vefalcs, and Cecofates; and on the west, the ocean. It comprehended the Medulli on the left of the Garumna, towards its mouth. Its length was sixty-three leagues, and its greatest breadth forty. Its metropolis was Burdigala, now Bordeaux. Aquitania Tertia, or Novempopulana, was bounded on the north by the Bituriges Vivisci; on the east by the Nitiobriges and Volcae Tectosages; on the south, by the Pyrenees; and on the west, by the sea. It was about forty leagues long and as many broad. The first two provinces, viz. Aquitania Prima and Secunda, were conquered by Caesar; the third by his lieutenants. When the emperor Honorius was under a necessity of succouring the Vinitges that part of Gallia Narbonensis, which was afterwards called Septimania, they soon took possession of the three provinces of Aquitania, and retained them till the time of Clovis, A.D. 486. Aquitania, after having undergone many revolutions, was ceded into a kingdom in 778, by Charlemagne, and afterwards reduced into a dukedom by Charles the Bald. Aquitaine, or Aquitania, in later times, has been included between the Loire, the ocean, and the Pyrenees, and comprehended Guienne and Gascogne.
ARA

AQUIZEBA, in Geography, a river of Spain, which runs into the Ocean, below Toletta, in Guipuzcoa.

AQUIA, in Geography, a port on the south side of the island of Candia. N. lat. 35° 3', E. long. 24° 59'.

AQUILA, the name of a disorder of the eyes, called also hippitis.

AR, See AAR.

Ar, called also Arraica, Ariel of Moab, and Rabbath-Moab, in Scripture Geography, the capital of the Moabites, on one side of the river Arnon, opposite to Arbar on the other, in Arabia Petrea. St. Jerome says, that this city was destroyed by an earthquake, when he was young.

Ara thuriens, the altar of intense, in A姊omancy, a southern constellation, not visible in our hemisphere, confuting, according to Ptolemy, of seven stars; and according to Sharp's Catalogue, annexed to that of Mr. Flamsteed, of nine stars.

ARA, Cape, in Geography, anciently Neptuni promontorium, is the most southern cape of Arabia Felix, forming with the coast of Ajan, in Africa, the is rafts of Babelmandel.

ARA AMORIS, in Ancient Geography, a cape of Ethiopia, upon the Arabian gulf, according to Ptolemy.

ARA Cæsaris, Arsago, a place of Italy in Insulbera, ten miles north of Melodium.

ARA FLAVIA, a colony of Germany, noticed on a medal of Domitian.

ARA Jovis Montani, a place near the island of the Thracian Chersonesus, between Potidos and Leucate-Aétê.

ARA Jovis Panopei, a place in the Treade, between the Sigurian and Rhetaian promontories.

ARA Lugdunensis, an altar consecrated to Augustus by sixty cities of Gaul, in the year of Rome 742, upon the point of land formed by the confluence of the Rhone and Saone; called by the writers of the middle age Attamum, now the point of Annay. Dion Cassius informs us, that in his time, two centuries after Augustus, the altar, and the honours rendered to this emperor, subsisted. Juvenal mentions it in his first satire, v. 44.

ARA Palladis, an island of the Arabian gulf, mentioned by Ptolemy.

ARA TUTIL, an ancient city on the eastern side of the island of Corica, according to Ptolemy.

ARA Ubius, Gotsberg, a place of Gaul, in Germania Secunda, now occupied either by Cologne or Bonn. In this place the Roman Legion, called prima legio, was encamped.

ARA PARUS, the little altar, a denomination in the Ancient Surgery, given to an elegant kind of bandage, said to have been invented by Solfratus.

ARA, in Geography, a river of Spain, which joins the Cinca at Ainfa in Arragon.

ARA, in Ichthyology, a name by which the Linnaean species of Scoumer, Trachurus, has been called by Kempt. jap. i. pl. ii. fig. 5. Vide Donov. Brit. Fishes.

ARA, in Ornithology, a generic name given by Briffon, Buffon, and others, to some birds which belong, in the Linnaean arrangement, to the genus Psittacus; thus, for example, Psittacus Macus of Linneaus and Gmelin is called ARA Eosafenbyi by Briffon, ARA premier by Fermin, and ARA rouge by Buffon; in like manner Allo, Psittacus Aracanga Linn. is ARA Jamaicensis of Briffon, and Petit ARA rouge of Buffon; Psittacus ater, Linn. ARA noir of Buffon; Psittacus celer, ARA Jamaicensis cynocereus of Briffon, &c.

ARA, is also a synonym of Cuculus tabulis of Gmelin, a bird that inhabits the Society Islands, and is called by the natives Ara wieroa. Vide Cook's Voyages.

ARA, or ARABIAN horse. See Horse.

ARA, in Scripture Geography, a town of Palatine, belonging to the tribe of Judah. Josh. xv. 72.

ARA, in Geography, a town of Asia, in Arabia Deserts, in the country of Najed or Nedifiche; one of the most ancient of this country, and perhaps of Asia.

ARA, a town of Perim, in Segellan, between the city of this name and Candalar. Some have thought that this is the ancient town of Arinape, the capital of Drangia.—Also a river of Peru, which serves as a nominal boundary towards Hindostan.

ARA, in Ancient Geography, a city of Ethiopia, assigned, according to Prais, on the bank of the Nile.

ARABAH, in Scripture Geography, a town of Palestine, belonging to the tribe of Benjamin. Josh. xviii. 18.

ARABAN, in Geography, a small town of Asia, on the river Kahur, in Diariski, in the Turkish government of Ora or Raca.

ARABANT, from ara, I plough, in Lavo, ad curiam deminis, was a term applied to those who held by the tenure of ploughing and tilling the lord's lands within the manor.

ARABAT, in Geography, a small maritime town of Europe, in the eastern part of Carm Tartary, on the borders of the sea of Azof, south of Bacha-fersa, and sixty miles south-east of Porecop. In 1771, it was assaulted and taken by the Russians, under the conduct of prince Tichiboff. Most of the besieged were put to the sword, and the rem made prisoners of war.

ARABAZARI, a town of Asiatic Turkey, in the province of Caramania, sixteen miles north-east of Alameh.

ARABEIA, or ARBELA, in Ancient Geography, a town of Sicily, mentioned by Silius Italicus, l. xiv. v. 271.

"Sidonius Araba ferox, et cellus Tetas".

Those critics who would substitute Arbeia for Arbeia, introduce the epithet ferox, denoting ferile, instead of ferox. Vide Sil. Ital. ed. Drakenborch. in loc.

ARAB-HISAR, in Geography, a town of Asiatic Turkey, in the province of Notulia, twenty-eight miles north-west of Mogha.

ARADESQUE, or MORESQUES, denotes a style of painting or of sculpture, so called from the Arabs and Moors, who employed ornaments of this kind for want of human and animal representations, which their religion prohibited their using. These ornaments are still in practice; but executed only in painting, and not in sculpture. Such are seen at the chateau of Meudon, that of Sceaux, to the Menagerie, and at Trianon, painted by Audran; and, in short, at the seats of various noblemen, &c. at home and abroad. Berin, Gillet, and Vateau, likewise excelled in this species of decoration, which has furnished models for tapestry at the Gobelins and La Savonnerie, as hangings in the royal private apartments, to which this sort of ornament is adapted, and no where else. Accordingly the best architects have only made use of them in retiring rooms, or at most in small apartments, treating with contempt the bad taste of these artists, who are profuse of these chimerical and imaginary ornaments in apartments that demand gravity, instead of preferring the real and beautiful productions of nature.

Arabes is used by Stephen Roux, esq. in his book on architecture, to denote that style of building which is vulgarly called...
called Modern Gothic, which he also terms Saracenic and Moris'; the introduction of which he ascribes to the Moors, or, which he says is the same thing, the Arabs or Saracens, who have expressed it, and in their architecture, the same tale as in their poetry, which are both fullyy dedicated, crowded with superfluous ornaments, and often very unnatural. This manner of building, he says, was introduced into Europe through Spain. The crusades gave the Christians an idea of Saracenic architecture, which they afterwards imitated. Sir C. Wren elevates the Zephyr as Anglo-Saxon, the lighter as Arabesque.

ARABIA, gulf of Giri, in Geography, called also Cyfa or Zygis, a small gulf on the coast of Barbary, between the coasts of Barca and those of Egypt.

ARABIA, in Ancient and Modern Geography, a considerable country of Asia, which, taken in its largest extent, lies between N. lat. 15° 30' and 31° 30', and E. long. 34° 14' and 50° 14', and forms one of the largest peninsulas in the world. It is bounded on the eait by the Euphrates, the Persian gulf, and the bay of Oman, on the west by Palestine, part of Syria, the illusmus of Suez, and the Red Sea, on the south by the frontier of Babemandel, and the Indian ocean, and on the north by part of Syria, Diarbekir, Iraq, and Khuzefan. Its northern limits, however, are left strongly marked than the others; for in both ancient and modern times, they ascend to an angle about 100 miles to the east of Palmyra, which is not included in Arabia. In these parts, the proximity of the Euphrates to the Mediterranean forms a peninsula. Its length, estimated from the cape of Babelmandel to the extreme angle on the Euphrates, may be rated at about 1800 British miles, and its mean breadth at about 820; or from the port of Jeddah to the cape of Razal-Gad, not less than 1000. Its limits, however, have been either enlarged or contracted by various geographers, according to the times in which they wrote; some having comprised under the name of Arabia, such of the neighbouring countries as might perhaps be subject to some particular tribes, and others detaching from it certain districts submitted to a foreign dominion. Accordingly the limits of the Proper Arabia reached no farther than the illusmus, extending from Allah at the north point of the Arabian gulf to the extremity of the Persian gulf, and the borders of the territory of Cufa; which tract of land was nearly comprehended by the Greeks under the appellation of Arabia Felix; and here the Arabs have been settled almost ever since the flood. The eastern geographers assign Arabia Petrea partly to Egypt, and partly to Syria; and they call Arabia Deferta, the defects of Syria: but as the Arabs have for many ages reduced these two provinces, the Turks and Persians now include them in Arabia. The ancients also assigned different limits to this large peninsula. Piny extended it as far as the border of Comagene, the northern part of Syria, on account of the many Arabian colonies established there by Tigranes; and Xenophon included in it the greater part of Mesopotamia: but, according to Ptolemey, the city of Phara, between the Elamite and Isopolitian gulf, or rather a line passing a little westward of this city, near the district of Isopoli, was its boundary on the side of Egypt. On the west, it was terminated by Palestine, part of Syria, the confines of Egypt, and the Arabian gulf; on the north, by the Euphrates, from the city of Thaphaeus, near the borders of the Palmyrene, to the district of Idicara in Babylon; on the east, by the Chaldæan mountains and the Persian gulf; and on the south, by the Erythrian sea. The same situation and extent are assigned to it by Diodorus and Strabo. Whatever be deemed its extent, it may justly be considered as a peninsula, because in the northern region it is confounded between the Euphrates and the Mediterranean.

The revolutions of time have produced no change in its primitive denomination; since even in the ages bordering upon the deluge it was known by the name of Aravah; which some derive from the Hebrew ערה, Arab, or eres, signifying the sea, a mixture, or merchandise, or traffic; others from Jarab, the son of Joktan, and grandson of Eber; and others again from Arabah or Araba, a district of Tehama, inhabited by Ishmael. By the Syrians and many of the orientals, it was called Arabìtan; and, in our sacred books, it is sometimes denominated the land of Cuf. Moses himself styles the western Arabia, Arabah, which affords a strong presumption, that its original name was derived from its situation: and when the Ishmaelites, who possessed it, gradually reduced the adjacent parts, they carried with them the appellation Arabah, and applied it to the whole peninsula. The first part of the peninsula of the Arabs was divided into Kedem and Arabah, as we learn from scripture. Kedem comprehended the Arabia Felix and Arabia Deserta of Ptolemy. Arabah corresponded to that country which was called, from Petra its metropolis, Arabia Petrea by Ptolemy; Arabia Citerior, from its situation with respect to Italy, by Pliny; and Arabia Vetus, by Stephanus and Procopius. Moses, with a geographical accuracy that defies the severity of criticism, determines the boundaries of this kingdom, when he tells us, that on the south, it reached to the sea of Saph, or the Red Sea; on the west, to Paran and Tophel; on the north, to Laban, Hattefor, and Di Zahab, that is, to the borders of Syria; and on the east, to Kadesh-Barnea, about eleven days' journey from Mount Horæ. As Arabah imports the sea, to Kedem does the saif; and these significations correspond to the respective situation of these countries. The first inhabitants of Arabah, or the western Arabia, were the Calluhim, descended from Mizraim, the Caphtorim, and the Horites, who occupied Mount Seir, before they were expelled from thence by Esau and his posterity. Afterwards Ishmael and his descendants settled here; and left of all, the Edomite or Libanans. Kedem, or the eastern Arabia, was first peopled by the sons of Joktan, who are reposed the aboriginal Arabians; though, in process of time, the Ishmaelites spread themselves over this country. Some of the Cuthites also gained early possession of part of it; and the children of Abraham by Keturah contributed, as sacred historians inform us, to augment the number of its inhabitants.

Ptolemy seems to have been the first who divided this peninsula into Arabia Petrea, Arabia Deferta, and Arabia Felix; and since his time this division has generally prevailed.

Arabia Petrea, or the Scaly, was contiguous, on the eait, to Syria and Arabia Deferta; on the south, to Egypt and the illusmus of Suez; on the north, to Palestine, the lake Alphalities, and Ceosyria; and on the south to Arabia Felix. This tract did not admit of much cultivation, the greatest part of it being covered with dry lands and rocks (whence its name), interspersed with some fruitful spots. Its metropolis was Petra; the other most considerable places noticed in scripture as belonging to this district were Paran, Dumah, and Pitom. The principal people that inhabited it were the Ishmaelites, the Nabiheims, the Cadi or Kadaren, and the Haageri or Ayarim. Of these the Ishmaelites were the most powerful, if they did not comprehend the whole of it. The most remarkable places in this region were the town of Kolsyium or Kolzom, the wilderness of Shur, that of Sina, that of Sinai, the mounts Caius and Sinai.
ARABIA.

Simon, Yezinghaher, the progenitors of Paran, Adra, Elufi, Abda, and Mecca. See the several articles.

Arabia Deserta was bounded on the north by the Euphrates, separating it from Mesopotamia; on the west, by Syria, Judaea, and Arabia Petraea; on the east, by Chadzara and Babylon; or a ridge of mountains dividing it from those countries; and on the south, by Arabia Felix, from which it was disjoined by several ranges of hills. The Cantabahoon, according to Ptolemy, inhabited that part of this province bordering upon the Euphrates, and the Batahuni occupied that which lay on the confines of Syria. The Agbeni and Rhabenii were placed more northward towards the frontiers of Arabia Felix, and near the Persian gulf, the Orchideth. Near the Cantabahoon, on the land of Babylon, dwelt the Aithia, supposed by Bathycol to have inhabited that tract in which was the country of Jab; and above the Rhabenii were the Mafa. In the interior part were the Agreys; and in the mountainous region, near Chadzara, were situated the Marteni. The towns of this district, enumerated by Ptolemy, if such they might be called, were places of no great importance.

Arabia Felix was limited on the north by the provinces already mentioned; on the south, by the Erythrean sea; on the east, by part of that sea, together with the Arabian and Persian gulfs; and corresponded to that tract which the oriental geographers regarded as the proper peninsula of the Arabs. Strabo says (l. xvii.) that, in his time, it was divided into five kingdoms, corresponding to the division of the proper Arabia into five provinces by the earlier writers. The principal nations noticed by the ancients in this province were the Sabaei, Gueerzi, Minzai, Atrakene, Maranisse, Catabani, Aafscre, Homereiss, Sapphorites, Omanites, Saracens, Nabathei, Thamydeni, and Binuzemene. The most remarkable places were Nyfa, Arga, Aidea, Pudini, Mula, Odaxis, Arabie emporium or aden, Mofha or Mafkat, and Atamass portus or Cadhemaa.

The belt eastern writers have divided this peninsula into five provinces or kingdoms, namely Yaman, Hejaz, Tehama, Naid, and Yamunam. The province of Yaman or Yemen, so called either from its situation to the right hand or south of the temple of Mecca, or from the verdure of its soil, extends along the Indian ocean from the fronds of Bahelminkel to Cape Razal-Chad or Rafalat. It is bounded by part of the Red Sea on the west and south, and on the north by the town of Nairwan, the Magera of Ptolemy; Hal or Haljo on the sea Al Kolzom; and Oman or Sohar; and it is subdivided into several lesser provinces as Hadramaut, Shihir, Oman, Nairwan, and Mahra, of which Shihir alone produces the frankincense. This country has been famous, from a very remote period, for its fertility and riches, and the happiness of its climate. The principal cities known to the ancients were Mocha, Aden, Sanza the capital of the province, and now reckoned the chief city of Arabia, Saba or Mareb, Shihid, Dhafar, and Oman or Sohar. This province, known under the appellation of Arabia Felix, called by the Greeks μῆλα ἄδηπος, and formerly extolled for the verdure of its trees, the purity of its air, the flavour of its fruits, and the fertility and abundance of its productions, manifests at present few traces of its ancient opulence; insomuch that it is difficult to conceive how it has acquired the name of happy; being a country where the greater part of the land remains without culture; and, excepted by burning heats, it is delight of inhabitants, excepting in places remote from the sea, where the mountains afford a refuge by their shade. It may therefore be presumed, that the articles of luxury which it produces, and which polished nations have converted into wants, have given rise to the belief, that where ever superfluities are found, there the necessities of life must be enjoyed in abundance; just as the vulgar imagine, that the most fortunate countries are those which produce gold, pearls, and diamonds. This province, far left tilter than Egypt or Syria, which lie at no great distance, seems only to have slipped the title of happy, from a comparison with the barren and indigent tracts that surround it.

Hejaz, so called because it includes Najf from Tehama, is limited on the south by Yemen and Tehama; on the west, by the sea Al Kolzom; on the north, by the deserts of Syria; and on the east, by the province of Najf. The chief towns are Mecca, Medina, Taif, Ailah, Yanbo, Madian, and Hejaz. The soil in this province is more barren than that of Yemen, and it is so parched as to afford neither water, nor fruit, nor genial habit; and yet supernatural cruelty produces plenty, insomuch that a province, doomed by nature to scarcity and want, becomes the wealthiest and most flourishing of Arabia. It was known, in the earliest ages, under the name of the Madianites, or Arabia Petraea. It once its opulence and celebrity to the towns of Mecca and Medina, the former having shared the honour of giving birth to Mahomet; and the other boasting of having granted him as an asylum, when, at the commencement of his ministry, he was obliged to retire from the face of his persecutors. Many honourable pretensions add lustre to this province. It was here, according to report, that Abraham laid the foundations of the most ancient temple in the world; it was here that Ishmael, on being forced to quit the paternal roof, came to seek a second country; it was here that Moses, when a fugitive from Egypt, withdrew from the vengeance of those who wanted to punish him for having killed the Egyptian; here he married the daughter of Jethro, a prophet highly revered, who, as the Arabsians relate, gave edifying lessons to the leader of the Hebrews; in short, it is here that we behold the two mountains of Horeb and Sinai, where Jehovah gave laws to his people, amidst awful thunder and lightning. It is from these illustrious claims that a province, which offers to the fight only lands and rocks from whence flow bitter waters, establishes its pre-eminence, and finds resources ever new in a glorious and profitable tradition. The province of Tehama, so denominated from the vehement heat of its sandy soil, and Gaur, from its low situation, is bounded on the west by the Red Sea, and on the other side by Hejaz and Yemen, extending almost from Mecca to Aden. The Arabian geographers have sometimes confounded this province with Yemen and Hejaz. Abulfeda mentions several towns in Tehama, which must have been undoubtedly of great antiquity, but unknown both to the Greeks and Romans. As the ground of this district is the lowest in Arabia, it abounds with springs, which are an invaluable treasure to a dry and parched region.

The province of Najf or Nebad, signifying a ruling country, lies between those of Yaman, Yemen, and Hejaz, and is bounded on the east by Irak. This elevated country presents to the view only rocks and deserts, from whence men and animals are totally excluded, on account of the scarcity of water, except in some few more favoured districts, where the shade of the mountains affords a defence against the scorching heat of the sun.

Yamama, called also Arad, from its oblique situation in respect of Yemen, is surrounded by the provinces of Najf, Tehama, Bahrman, Oman, Shihir, Hadramaut, and Saba. The chief city is Yamama, which gives name to the province; and it was anciently called Jaw or Gjauva; it is particularly famous for having been the residence of Mahomet's competitor, the false prophet Mofallama.

The inland parts of Arabia, occupied by the extensive province
province or desert called Neged, were, till of late years, almost utterly unknown. The relations of travellers were confined to the coasts of that vast country, to which, without doubt, their perambulations were limited. Michæli, the celebrated professor of Gottingen, proposed to the late king of Denmark, to send five able persons to explore the territory and productions of Arabia. Of these five Danes, four dying in the journey, M. Niebuhr, who had been appointed to the geographical department, took upon him to execute the object of the expedition alone. From the relation which he published in 1772, we shall make some extracts. Of all the maps of Arabia that have hitherto been published, this learned traveller gives the preference to that of M. D'Anville, published in 1711, under the title of "Première Partie de la Carte de l'Afrique, la Turquie, l'Arabie, l'Inde, & la Tartarie." He collected a great number of inscriptions and medals in Cufic characters, to which he annexes the explanations given by Mr. Reifschneider, professor at Leipſie. Among these antiquities, he presents one of bronze, on which appears the figure of the crofis, with the name of a caliph and a Turkish legend. Our astonishment at this curious mixture will cease, on learning that the medal was struck in a country that was, at the same time, governed by the Greek emperors and the caliphs of Bagdad.

Arabia is divided by the inhabitants themselves into eight provinces, entirely independent on one another, viz. Yemen, on the south, towards the Red Sea; Hadraimit, Hadramaut, on the shores of the Indian Ocean, Oman, on the south of the entrance of the Persian Gulf, Hadisjar, or Hijaz, the Hijer of M. D'Anville, or Lahfa, Nedjed, or Neged, and Hedjas, or Hejaz. The territory of the Bedouins, or of the Arabs in the desert of Syria, may be reckoned a seventh province; and to this again may be added the Arabian establishments on the southern coast of Persia. See the several articles.

All of the governments of Arabia, which is divided among numerous Imams and Sheiks, that of Yemen is the most uniform and belt regulated, and an idea of the rest may be formed from that of Yemen, described by Niebuhr. The title of Imam, denoting Viceroy, that is of Mahomet, is ecclesiastical; in Arabia it is considered as synonymous with Caliph, and Emir or Mumenin, or prince of the faithful. Its antiquity is not explained, but the history of the Imams of Yemen is very modern; and though they sometimes celebrate divine service, the fally of Emir, which they themselves assume on their coins, seems more proper and precise. They give the government up to Sheiks, a term signifying old men, and rarely blended with the ecclesiastical character.

The throne of Yemen is hereditary; and the Imam, or Emir, an independent power, acknowledging no superior in spiritual or temporal affairs. He possizfs the prerogative of peace and war; but cannot be called despotic, as he cannot deprive even a few of a pagan of life; but the emir must be tried before the supreme tribunal of Sana, confining of several Cadis, while he is only prexident. When an Emir shews a despotic disposition, he is merely dethroned. The first in rank are the Pakis, a title so lax as seemingly only to imply gentleness. The governors of districts are called Dolas; or, if superior in birth, Walis. The Dola corresponds in some degree with the Turkish Pasha. The chief magis ter of a small town without a garrison is called Sheik; as a superior governor is sometimes called Emir, and in little villages, Hakim. The Bakhate, or comptroller, is an officer who depends on the prince, and inspects the conduct of the Dola, and the management of the revenues. In each district there is also a Cadi, who, like those in Turkey, are judges of ecclesiastical and civil affairs; and perhaps depend on the chief Cadi at Sana, as those of Turkey do on the Mufil: but in Arabia the prince himself is the high priest. His army, in peace, was computed at 4000 infantry, and 1000 cavalry; the soldiers being, as usual in the east, without uniforms. There is no navy, and the vessels in general are very ruderly constructed, those of Yemen having sails made of matting. Yemen adopted the koran in the 7th year of the Hegira. This fine province has at several times excited the ambition of Egypt, and been subjected to the Ottoman sultan. It successively became a prey to Saladin, Guri, and Solymian; but the love of liberty always triumphed in the mountains over the Ottoman arms.

In 1630, Khaffem, one of the independent Sheiks, forced the Turkish Pashas to quit the country; and Ismael, his son, established this happy revolution, and took on himself the office of Imam. The general aspect of Arabia, says a modern geographer (Mr. Pinkerton), presents a central desert of great extent, with a few fertile "cafes," or islands, as in Africa; while the flourishing provinces are those situated on the shores of the sea, which supplies rain sufficient to maintain the vegetation. In Yemen there are mountains of considerable height, but chiefly barren and upland; while the temperature and plants are striking contrast with those of the Gulf; yet the want of rivers, lakes, and perennial streams, must diffuse ideas of fertility through the Arabian landscape. In the delta of rivers strictly belonging to Arabia, the Euphrates and Tigris, which pass through Irak-Arabi, have been claimed by some geographers; and the Euphrates may be justly considered as an Arabian river. But in Arabia Proper, what are called rivers are mere torrents, which descend from the mountains during the rains, and for a short period afterwards. Such is the Alfan of Neged. The most important river is probably that which arises near Sana, and joins the Indian sea below Harjiah. The little river of Krim flows from Mahah into the same sea, and is followed by two or three brooks in Oman, or Oman. One or two small lakes occur in situations incircled with hills, which prevent the escape of the water.

The chief range of mountains seems to proceed in the direction of the Red sea; towards the north not more than 30 miles distant, and sometimes in the fourth about 150; a fertile vale which bears its desert and fertility to Yemen. The hills of Oman seem a continuation of those on the other side of the Persian gulf; and the islands in the mouth of that gulf may be regarded as summits of that range. In the country of Sega, commonly ascribed to Hadramaut, there is a range of hills remarkable for the product of frankincense. The direction of the other ranges cannot be accurately ascertained in the imperfect geography of the country. In Arabia Petraea is the celebrated mountain of Sinai, with its two sublime summits of red granite.

The agriculture of Arabia is employed in the production of wheat, maize, "dura," or a kind of millet, barley, beans, lentils, and rape, with the sugar cane, tobacco, and cotton. Rice seems unknown in Yemen, and oats throughout Arabia: the horses being fed with barley, and the asses with beans.

They also cultivate "sars," a plant which dyes yellow, and is exported in great quantities from Mocha to Oman; and "fua," used in dyeing red; likewise indigo. The wheat, in the environs of Makkah, yields little more than ten for one; and in the bull cultivated districts of Yemen, go to one; but the dura sometimes much exceeds this ratio, yielding in the highlands 140, and in the Tehama, or plain, from 200 to 400. By their mode of fowing, and watering this grain, the inhabitants of Tehama reap three
three successive crops from the same field in the same year. The plough is simple, and the pick is used instead of the spade. The principal exertion of the Nabob's industry is to water the lands from the rivulets and wells, or by conducting the rains. Barley is reaped in November; but the fikon depends on the situation. At Maklat, wheat and barley are sown in December, and reaped in March; but durra is sown in August, and reaped in the end of November. The Arabsians pull up their ripe corn by the roots; but the green corn and grapes, as forage for the cattle, are cut with the sickle. In thrashing their corn, they lay the sheaves down in a certain order, and then lead over them two oxen dragging a large flail.

The greater part of Arabia, being composed of dry barren deserts of sand, either wholly destitute of water, or furnishing scanty springs of that which is brackish, presents few objects to botanical investigation. The vegetable in such districts, exposed to the violent sun, and freshened merely by nightly dew, belong for the most part to the genera of aloes, melobrenchymen, euphorbia, lappelia, and fufola. On the western side of the Arabian desert, numerous rivulets, descending into the Red Sea, diffuse verdure; and on the mountains from which they run, vegetation is more abundant. Either many Indian and Persian plants, distinguished for their beauty or use, have been transported in former ages, and are now found in a truly indigenous state: such is the case probably with the tamarind, the cotton tree (inferior to the Indians), the pomegranate, the banyan tree or Indian fig, the sugar cane, and many species of melons and gourds. Arabia Felix may peculiarly boast of two valuable trees, namely, the coffee (coffeae Arabicae), found both cultivated and wild; and the amyris opolpehennum, which yields the balm of Mecca. Of the palms, Arabia possesses the date, the cocoa nut, and the great fan palm. It has also the sycomore fig, the plantain, the almond, apricot, and peach, the papaw, the bead tree, the mimola nilotica, and fenitilla, and the orange. Among its thorns and herbaceous plants may be enumerated the rictum, the liquorice, and the fenian, used in medicine; and the balsam, globe amaranth, the white lily, and the greater panarium, distinguished for their beauty and fragrance.

The mineralogy of Arabia is not very important. It has no native gold, nor any silver, besides that which is mingled in the lead mines of Oman. In the northern district of Yemen, called Saade, there are some mines of iron, which is brittle. Its precious stones have been imported from Hindostan: its agates, called Mocha stones, are brought from Surat, and the balt cornelians from the gulf of Cambay. Yemen, however, produces onyxes: a kind of Saroney is found near Damas. Rock salt appears near Loheia; and in Ajemen, Niebuhr has observed pentagonal pillars of salt, with bluish alabaster, flint, and various spar; but it does not appear that any of the gems are produced in Arabia. The pearls and spires, of which Arabia formerly boasted, were probably the products of the Indies and the coasts of Africa, whither the Egyptians went to fetch them, in order to diffuse them among the nations of the west; and as it was their interest to conceal the source of their wealth, they chose rather to have it thought that they traded to Arabia, where it was impossible to penetrate far, without imminent danger of death in the sands of the deserts.

The principal riches of Arabia consist in flocks and herds, and especially those species of animals that require only succulent herbs for their nourishment. The cow here yields but little milk; and the flesh of the ox, which like her delights in fat pastures, is insipid and nauseous. The wool and mutton of the sheep are coarse. In the mountains of Arabia Petraea is found the rock-goat. It is probable that Arabia, notwithstanding the fertility of its soil, was formerly inhabited and peopled for the same reason that commodity formed a prime object of commerce with the neighbouring countries; nevertheless it is a well-known fact, that in all the tropical regions there is a greater consumption of fruits and vegetables than of flesh. Of all the animals of Arabia, the horse claims the pre-eminence. According to Zimmerman (Zool. Grec. 1777, p. 149), this animal is found wild in the extensive deserts on the north of Hadramout: this might have been the case in ancient times, unless it should be thought more probable that the wild horse of Tartary has passed through Persia, and has been only perfected in Arabia. The horses here are distributed into two classes, viz., the Kudjebeli, or common kind, whose genealogy has not been preserved, and the Kuchinian, or noble horses, whose whole breed has been ascertained for 2000 years, proceeding, as their fables assert, from the tails of Solomon. They are reared by the Bedouins in the northern deserts between Baffora, Merdian, and the frontiers of Syria; and though they are neither large nor beautiful, their race and hereditary qualities being the only objects of estimation, the preservation of their breed is carefully and authentically watched; and the offspring of a Kuchinian stallion with an ignoble race is reputed Kudjebel. These will bear the greatest fatigues, and pass whole days without food, living according to the Arabian metaphor, on air. They are said to run on a foe with impetuousness; and it is asserted that some of them, when wounded in battle, will withdraw to a spot where their mallet may be secure; and if he fail, they will neigh for assistance. Accordingly their value is derived from their singular agility, an extreme docility, and an uncommon attachment to their masters. The Arabian fleeds are sometimes bought at excessive rates by the English at Mocha. The duke of Newcastle asserts, that the ordinary price of an Arabian horse is 1000, 2000, or even 3000l; and that the Arabs are as careful in preferring the genealogy of their horses, as princes in recording that of their families: the groom's are very exact in registering the names of the fires and dams of these animals, and none of them are of very ancient date in this species of pedigree. It is affirmed that Arabian colts are brought up with camel's milk. In this country there is also a superior breed of asses, in form and qualities approaching to the mule, and sold at high prices. Arabia, or Africa, seems to be also the native country of the camel. Niebuhr observed camels of different kinds, and he seems to have decided the question concerning the domestication by saying that this animal in Arabia and Egypt has always one hunch only, and can otherwise be scarcely distinguished from the camel, but in being more light and speedy. The bufalo seems to be unknown in this country; and the camel in general have a hunch on the shoulder. Arabia is infested with almost all kinds of furious beasts, that prefer burning sands and arid mountains to humid regions: they fix their abode in the caves of the mountains, in the cellars of the rocks, or in dens which they dig for themselves. The other animals are the jackal, or chael; the hyena, towards the Persian gulf and the desert mountains of Arabia Petraea; numerous monkeys in the woods of Yemen; the jebba, or rat of Pharaoh, in Neged; and there are also antelopes, and wild oxen, with wolves, foxes, and wild boars, and the large panther, called in Arabia, "nemer," and a small panther, called the "faith." The tiger seems utterly unknown, and the lion only appears beyond.
yond the Euphrates. But if ferocious animals of various kinds exercise with impunity their ravages in the deserts, the mountains teem with other animals, which produce great advantages to commerce; such as the civet-cat, the bezeror goat, the mule-rat, and various others, which are divested by nurture of their savage disposition, and admired by habit to domestic discipline.

Among the birds may be named the pheasant, common in the forests of Yemen, and the grey partridge in the plains, besides all sorts of common poultry. On the coasts of the Persian Gulf, and of the Red Sea, there are species that live on fish are numerous, and in an island of this sea are found cases in the deserts are ostriches; and the birds of prey in Arabia are eagles, falcons, vultures, and sparrow-hawks. A bird of the thrush kind, called by Mr. Forfkal, "turdes fleucus," is very serviceable in destroying locusts, and is thought to come annually from Khorasan. It is designated "Sa-marmog," or, "Samarmog." Arabia abounds with land-tortoises, which are eaten by the Cenfern Christians in Lent; several forts of lizards, and all of serpents; and of the latter, the only fort that is formidable is that called "Extan," which is small and slender, and spotted with black and white; its bite is so poisonous, that it occasions instant death. The Red sea is florid with a great variety of fishes. Mr. Forfkal is said to have observed more than 80 new species; some of which he could not rank among any of the known genera. The locusts are very numerous; and that species which infests Arabia is called by Mr. Forfkal, "Gryllus gregarius," which he thinks to be different from the "Gryllus migratus" of Linneus. All the Arabians, whether living in their native country or in Persia, Syria, and Africa, are accustomed to eat locusts, and they ascribe a peculiar delicacy to the red fort, which they esteem fatter and more succulent than any of the others. The swarms of these insects darken the air, and at a distance appear like clouds of smoke. In flying, their noise is tremendous, and resembles that of a water-fall. When such a swarm falls upon a field, it is soon confounded and defoiled of its verdure. A small insect, named "Arda," (the "Termeis fatale" of Linneus), is another scourge of Arabia, as well as of hot countries in general. These live and work together like ants, and are very destructive to trees. The inhabitants of the country, for preferring their gardens from the depradations of these mischiefous insects, surround their trees with sheep's dung, the smell of which the arda cannot endure. A species of "escopendria" torments the Arabsians, and afflicts those on whom it fixes with burning pains. Among the "Tenebriones," there is one species which the women of Arabia and Turkey dig out of the frost of the garden; and they swell three of them fried in butter every morning and evening, in order to acquire that plumpness which is deemed in the East a beauty.

The Red Sea is full of marine insects; and Mr. Forfkal, from a number of observations, inferred, that an immense number of these animals contribute to produce the reflection perceived at night in sea-water. The shells of the Arabian gulf are numerous, and some of them belong to rare species. The most beautiful is a "pinna," with superb colours. The Arabian gulf abounds with immense banks of coral; so that most of the houses in the Tehama are built of coral cok. These rocks, rising sometimes ten fathoms above the surface of the sea, are folt under the water; and as they are easily wrought, they are preferred to all other stones for the purposes of building.

In the whole peninsula of Arabia the year has only two distinct seasons, the dry and the rainy. The latter commences in the province of Yemen, about the middle of June, and terminates in September; but the sky is rarely covered with clouds for 24 hours at a time. At Makkah, and in the eastern mountains, it fails from the middle of November to the middle of February; and in Oman and Hadramaut, from the middle of February to the middle of April. These regular rains are very beneficial, as they render the valleys lying among the mountains fertile and delightful. In the plains of Yemen rain is sometimes uncommon for a whole year; and in the dry season, a cloud is rarely to be seen. The heat is no less subject to variation, than the wet season. At Saba, in the mountains, it has never exceeded 85° from the 18th to the 28th of July; whereas in Tehama, which is lower than Yemen, it has stood at 95° from the 6th to the 20th of August. It sometimes, though rarely, freezes at Sana, while at Lobra the thermometer is at 86°. Hence the inhabitants of Yemen live as if they belonged to different climates; and even at a small distance are found fruits and animals which might indicate remote countries. The wind from the sea is generally moif, that from the interior deserts dry; and in the northern deserts are chiefly perceived the disastrous effects of the burning wind called Sam, Samam, or Samiel. The Arabs discern its approach by an uncommon reduction in the air; and to defend themselves from the imminent danger, they throw themselves flat on the earth. The people of the isle of Chantilli and of the Marelin, have nothing to dread from this deadly wind; sleeping in the open air from the 18th of May to October, without feeling any inconvenience.

Although the Arabians are ingenious and diligent, their manufactures are of little consequence. Even in Yemen, the works in gold and silver, and the coin itself, are produced by Jewish manufacturers. In the whole country of Arabia there are neither wind-mills nor water-mills. The mulkets that are made in the country, are like the Arabians were formerly deemed, are mere matchlocks of mean fabric. At Musca there is one glafs-houfe; and in Yemen there are some linen manufacturies, chiefly coarse. Among the chief vegetable products of Arabia, Nibnuhr reckons aloes, myrrh, frankincence of an inferior kind, and coffee; and also cocoa trees, pomegranates, dates, apricots, peaches, almonds, filberts, pears, figs, and tamarinds. But the best frankincence, with pikennards, cinnamon, caflon, cardamums, and pepper, are imported from Hindostan. The orange trees are brought from Portugal, and the lemon from Italy; the mangoes and cocoa, with several others, are imported from Hindostan.

The commerce of Arabia was formerly very considerable; as its ports facilitated a communication between the eastern and western world. But since the Portuguese opened a passage to India by the Cape of Good Hope, its intercourse with Hindostan has very much declined. The chief articles exported from them are coffee, aloes, and myrrh (of which the latter is brought from Abyssinia), olban (or an inferior kind of frankincence), fenna, ivory, and gold from Abyssinia. The European imports are iron, steel, cannon, lead, tin, cochineal, mirrors, knives, sabres, cut glafs, and false pearls. Nibnuhr regards aloes and frankincence (the latter chiefly from Hadramaut) as the only native articles of commerce, before coffee came into use. The principal trading ports are Jidda or Gdida, the harbour of Mecca, Lobra, and Beit el Fakih, carrying on a confiderable trade in coffee; Gezan, trading in fenna and coffee; Hodeida, Mocha, Aden, Makkah, Sur or Seer, Fahat and Datar, on the Arabian ocean; Bahrin and El Katif, in the gulf of bassora; Bassora, &c. See the articles.

Besides the maritime commerce, a considerable traffic is carried on by land by means of the caravans of Aleppo and
Suez, which bring lusher velvets, fattrns, armories, and all sorts of rich stuffs; fasson, mercury, vermilion, &c.; and take in return, partly the natural products of the country, partly manufactures, and partly the foreign mechanizd that have been brought from the Indies, from Aeppus, and from Europe. Neithr observes, that the trade on the coast of the Red Sea cannot be advantages to any nation that has not settlements in India. The Arabian, he lays, make no use of the productions of Europe. It will be, therefore, necessary to supply them with India goods, and to take coffee in return, which can be brought cheaper from ships which take it in merely to avoid returning empty. There is, however, a great quantity of corn sold in Arabia, which the English produce chiefly from the Downs. This ingenious traveller adorns strangers against the beauty of the Mahometan books; and he recommends the applying rather to the Banians, among whom are many very considerable merchants, who are very hospitable men. In his description of the extensive country of Neged, he informs us, that the Arabs, who inhabit it, are not more inhuman to strangers than the rest of their nation, nor less hospitable; but as this country contains many little independent states, each governed by a sheikh, it may be easily conceived that travellers here find little security. Each prince endeavors to get from them all he can; and as they are commonly at war with each other, strangers are despised by the first, that their neighbours may not be the richer. Hence opulent foreign merchants cannot hazard their caravans in these regions; and those that come from Oman and Labba to Mecca, are generally composed of beggars, or people who wish to pass for such; and the caravan which every year leaves Bagdad for Mecca, accompanied with many rich Persians, is, in proportion to its number, charged with familiar expenses and extortions with those of Turkey, Egypt, and Magreb, which pass by Hejaz. Yet there is reason to believe, that the town of Neged carry on a considerable trade among themselves, and with the neighbouring places in Hejaz, Yemen, and Labba; and by these means it may be possible for an European traveller to inspect this internal part of Arabia.

The population of Arabia consists chiefly of Mahometans, intermixed with some Jews and Christians. Banians also from India are settled in great numbers in their commercial cities. For their manners and customs, language, and literature, and other particulars, see the following articles, and those already referred to in the general account of the country.

Of the various Arabian colonies settled in the maritime parts of the gulf of Persia, the most considerable is the city of Aboushan, 28° 57' from the equator. That of Gombron, founded by Shah Abbas, has been lying, ever since the troubles consequent on the death of Shah Nadir, the opulence and splendor which it derived from the extent of its commerce. Besides several isles of little consequence in the Arabian gulf, there are Socotra in the Arabian sea; and the Isle of Imam, or Ara, in the Persian gulf, in which there is a fortified town; and on this and the group of adjacent small isles, there are 50 or 60 mean villages.

ARABS, bistory. Character, enforts, Sc. of the. According to the oriental writers, the Arabs are distinguished into two classes, viz. the old loth Arabians, and the present. The former were very numerous, and divided into several tribes, which are now all destroyed, or else destroyed and swallowed up among the other tribes; nor are any certain memoirs or records extant concerning them. The most famous tribes among these ancient Arabians were Abi, Thamud, Tafin, J blade, the former Jorham, and Andak. The present Arabs, according to their own historians, are sprung from two flocks, Kahtan or Juktan, the son of Eber, and Adan, descended in a direct line from Ishmael, the son of Abraham and Hagbar. The poverty of the former they call Al Arab, Al Arabi, i.e. the pensive or pure Arabs; and those of the latter, Al Arab al Masireb, i.e. naturalized or inquisitive Arabs. Besides these tribes of Arabia, mentioned by their own authors, who were not descended from the race of Shem, others of them were the poverty of Ham, by his son Cuth, who inhabited the banks of the Eufrates, and of the Persian gulf, whether they came from Chiraz, or Susiana, the original settlement of their father. To these three flocks traditional report ascribes the origin of the Arabian. Some time after the condition of languages at Babel, or according to the computation admitted in Europe about 3500 years ago, Yarah, the elder of Juktan's sons, it is said, succeeded his father in the kingdom of Yemen, giving name, as the Arab writers maintain, to their country and language; and Jorham, the younger, founded the kingdom of Hejaz, where his polity preserved the throne till the time of Ishmael. The kingdom of Yemen, or at least the better part of it, particularly the provinces of Saba and Hadramaut, was governed by princes of the tribe of Hamyar, the son of Saba, and the great granulated of Kahtan; though at length the kingdom was transplanted to the descendents of Cahlan his brother, who still retained the title of king of Hamyar. The princes of the Hamyaries, called Homerites by the later Greek and Latin authors, had the general title of "Tooba," signifying successor, as the Egyptian kings had that of Pharaoh, the Roman emperors that of Caesar, and the succerors of Mahomet that of Caliph. This kingdom failed, according to Abubedia, 2030 years; or, as other Arab writers say, above 5000; the length of the reign of each prince being very uncertain. The first great calamity that befell the tribes settled in Yemen was the inundation of Aram, which is said to have happened soon after the time of Alexander the Great, and to have been occasioned by the irruption of a mound, or dam, erected near the city of Saba, afterwards called Mereb, and serving as a reservoir for receiving the water which came down from the mountains for the supply of the city, and for watering their lands. On this occasion, eight tribes were forced to abandon their dwellings; and some of them, in their migration, gave rise to the two kingdoms of Ghaffan and Hirah; both of them out of the proper limits of Arabia. The founders of the former, in Syria Damascena, maintained their kingdom, according to Abubedea, 616 years. Five of these princes were named Hareth, written by the Greeks Aretas; and it was the governor of one of these who ordered the gates of Damascus to be watched, for the purpose of apprehending the apostle Paul. This tribe was Christian; but their last king, on occasion of the successes of the Arabs in Syria, professed Mohammedism under the Caliph Omam; however, on receiving some disfavour, he returned to his former faith, and retired to Constantinople. The other kingdom of Hira, founded in Chaldea, or Iraq, continued, with some small interruption by the Persians, till the caliphate of Abubeker, and its duration was near 623 years. The princes were under the protection of the kings of Persia, acting as their lieutenants over the Arabs of Iraq, as the kings of Ghaffan were for the Roman emperors, over those of Syria.

Jorham, the son of Kahtan, who founded the kingdom of Hejaz, and his posterity, maintained possession of it till the time of Ishmael, who, marrying the daughter of Modad, one
one of the princes of the country, had 12 sons; to one of whom, called Kidar, the crown was resigned by his uncle, the Jorhamites; but others say, that the defenders of Ithana expelled that tribe, who, retiring to Johinah, were, after various fortune, all destroyed by an insurrection. Of the successive kings of Hamyar, Hira, Ghassan, and Jorham, Dr. Pococke, in his "Specimen Arab," has given catalogues, that are said to be tolerably exact.

After the expulsion of the Jorhamites, the government of Hejzy seems not to have remained for many centuries in the hands of one prince, but to have been divided among the heads of tribes, almost in the same manner as the Arabs of the desert are governed at this day. At Mecca, an aristocracy prevailed, where the chief management of affairs, till the time of Mohammed, lay in the tribe of Koreish; more especially after they had obtained the custody of the Caaba from the tribe of Khazaah, one of those tribes that had migrated from Al-Aram.

Besides the kingdoms already enumerated, there were some other tribes, which in latter times had princes of their own, and formed states of inferior note; such, in particular, was the tribe of Knda, which had several kings.

Having given a brief abstract of the history of the ancient Arabs before Mahomet, it may not be improper to subjoin a concise account of the principal transactions in which those people were concerned with the Egyptians, Persians, Greeks, and Romans, extracted from the most approved writers of the two last nations. According to Dioecitus Siculus (lib. i.), Sesostris, the Sefac of Jophesus and Sir Isaac Newton, subdued Arabia. But it is evident, that the Arabs were never completely subjugated, nor for any long time rendered any homage to the kings of Egypt, because Sefac himself, as the same author informs us, was obliged to draw a line from Helopolis to Pelusium, in order to secure Egypt. But Hecataeus, the first Arab historian, gives an account of the great conquests of the Arabians, more Scenicus Arabs, contiguous to Palestine and Syria, milit., therefore, have been independent on that prince. Nor can it be inferred from Dioecitus, that he ever harried Arabica Felix, though he had a fleet of 400 sail upon the Red Sea; but only coaled it, or at most seized upon some of its maritime provinces in his voyage to India; and by the testimony of this historian, who has extolled the conquests of Sesostris, it sufficiently appears, that the whole peninsula of the Arabs never was, at least for any considerable time, in a state of servitude to the Egyptians. It appears on the contrary, that they gave kings to Egypt, who were known under the name of Shepherds. From Dioecitus (l. ii.) we also learn, that neither the Assyrians, Medes, nor Persians, could ever gain any considerable settlement among them. The Persian monarchs were respected by them as their friends, and received from them, as Herodotus informs us (l. iii. c. 97.), an annual present of frankincense; and yet they never made them tributary, and gave law to them; nor is Arabia found in any enumeration of their provinces: so far indeed were the Persians from being their masters, that Cambyses, in his expedition against Egypt, was obliged to ask permission to pass through their territories. The Spartans, inured to conquer, made a defect on their coasts, and repented of their temerity.

When Alexander the Great had subdued the Persian empire, the Arabians, however exorbitant and generally dreaded his power was, in consequence of the extent and fame of his victories, had but little apprehension of him, that they alone, of all the neighbouring nations, sent no ambassadors to him. The preparations which he made shew, that he regarded this conquest as worthy of his utmost exertions, but death put a stop to his enterprise, so that it is impossible to decide what would have been the event; but perhaps this people might have convinced him that he was not absolutely invincible. The successors of Alexander, who attempted to prosecute his design, were as often defeated. For an account of the unsuccessful enterprise of Athenacus, the general of Antigonus, the Antigonid.

The reply of the Arabs to Demetrius, who undertook a second expedition against them, demonstrates their manly resolution, and their indifference to the fame that is acquired by arms. "King Demetrius!" said they, "what are thy pretensions? what wouldst thou have of us? what motive brings thee to disturb the silence of our deserts, where nature, a cruel stepmother to us, grants children no other than the painful means of subsistence? our parcelled and fan- dy deserts have no charm for us except the liberty they allow us to enjoy, and which thou art come to ravish from us. It is the love of independence, that renders such hardships as are unknown to the other inhabitants of the earth, supportable to us. Our rocks are too hard to be broken by thy speccepe; if thou wouldst subject us to thy yoke, begin by subjugating our sentiments; alter our manner of life; but first convince us of subsistence in a country that has nothing but sand, and rocks, and metals. Be advised, and let those people live in peace against whom thou hast no cause of complaint, and who desire to have no quarrel with thee. Accept the presents we here bring thee; and may they induce thee to believe that the Nabathans are thy friends."

The Romans made incursions into Arabia, but never subdued it. Some few tribes, vanquished by Lucullus, did homage to the majesty of the Roman people. Pompey, as Plutarch informs us, obliged Areias, an Arab prince, whose dominions bordered upon Syria and Melopotamia, to receive a Roman garrison; and the same general likewise subdued the Arabs who dwelt about mount Ammon, by his lieutenants. After which the king of the Arabs, residing in Petra, addressed a letter of submission to him; but it does not appear that Pompey ever gained possession of that fortresses. Crassus, ambitious of making the conquest of this country, entered a district of it with a numerous army, which perished in the defects from thirst and misery. Albus Gal- lus, in the reign of the emperor Augustus, in some measure repaired the disgrace of this disaster. He, of all the Roman generals, seems to have penetrated farthest into the immense and frightful deserts. At first he met with some brilliant successes; but the deadly heats consumed the flower of his troops, and he was obliged to retire with the remains of his army, whose fruitless victories were celebrated by the flatterers of Augustus. Caius, his grandson, convinced of the impossibility of subjugating a people, who only regarded life inamuch as they could live free, invaded their towns with fire and sword; and having forced them to surrender, he thence made excursions upon the territories of the empire; but after all his exertions, contented himself with the glory of having deprived them of the means of offence. From that time to the reign of Trajan, we read no conquest between the two nations. This emperor laid siege to the capital of the Hagaranes; and after repeated efforts, submitted to the disgrace of raising it. Notwithstanding the flatteries of Tra- jan, by the historians and orators of his time, and the medals struck by him, he did not subdue the Arabs; the province of Arabia, which he is said to have added to the Roman empire, scarcely reaching farther than Arabia Petraea, or the very skirts of the country. About eighty years after this period, the emperor Severus, being greatly incensed against the Arabs bordering on Syria, laid siege to Atrac their capital, with a formidable army; but he was obliged to raise it, and to retire into his own dominions. The Sa- racens,
racers, the most celebrated people among the Arabs, ravaged Mesopotamia in the time of the emperor Constantius, and joined the Persians against Julian. This prince, and one of his predeccessors, had paid a subsidy to the Saracens who served in their armies; but Julian, who considered them as his subjects and not as his allies, thought the treaty degrading to the majesty of the empire, and refused to pay a tribute under the qualifying term of a subsidy. Of this infraction the barbarians complained; but the prince, who knew how to fight as well as to govern, haughtily answered: "My implement is iron: I know nothing of gold." This expression they repeated, defected to the Perian, and ever after continued faithful to him. Sometime afterwards these warring races of people marched to the relief of Conscientiopolis, of which city they became the deliverers. It was under the reign of Theodosius that they began to make war in their own behalf; and after having been the play of the tottering empire, they became its terror. The Arabs, hitherto divided in tribes, now united their forces, and rallied forth to make conquests. It appears that the feet of that barbarous valour they now displayed had been concealed in their breasts, and that their hard and laborious life had prepared them for becoming intrepid soldiers. Their defeats were a rampart that secured them from foreign incursions; it was impossible to penetrate them without the danger of perishing for want of water, as the wells for the supply of it were known only to the inhabitants, who never disclosed the secret. Their towns were little elie than magazines, in which they stowed up the fruits of their predatory attacks, confuting of little more than a collection of huts, which they abandoned on the approach of an enemy; their citadels were the work of nature, steep rocks from whence they defied the most numerous hosts, who, like them, had nothing to fear, except the dearth of water and famine. Being ignorant in the art of fortification, they were but little vexed in the attack of strong holds; thus their offensive wars were nothing more than trancitory incursions: the forts which their enemies erected on the frontiers were sufficient to restrain their depredations. They were wont to thank heaven for giving them swords instead of ramparts. Their education was martial; they trained their children to the use of the bow and the sword, and in breaking their horses. An excellent sword was a family token, which a father bequeathed to his children, to remind them of the bravery of their ancestors. Prodigal of their own blood, it cannot be imagined that they were sparing of that of others. They fought only by daylight, because courage is routed by having witnesses of its efforts, and they thought that darkness was favourable to cowardice. It is therefore by no means surprising, that a people born with such noble propensities should have achieved such prodigies of valour, when once they had yielded to the ambition of conquests. The Arabs then, naturally warlike, only waited for circumstances to render them conquerors; for a long time, however, pacific and obscure, they took up arms merely from greediness of spoil, and never with a view of extending their borders, holding mankind in too great contempt for wishing to have them for subjects. They marched to battle without order or discipline; but accustomed to contend with ferocious animals, they carried courage to the excess of ferocity. Some, however, more savage than the rest, folo their blood and their services to such kings as were able to buy them; and it was not so much from a sentiment of honour, as from the hope of spoil, that they abandoned the tranquility of their solitudes. The Romans and the Persians, as we have seen, had in their armies a body of Saracens, who frequently decided the fortune of war. Though satisfied with their independence, they were scrupulous of attacking the liberty of their neighbours; and their greatest glory was their never having surrendered to foreign dominion. To this, however, they have undoubtedly a distinguishing claim; those who at different times attempted to subjuge them, having merely succeeded against a few tribes, settled in the cities on the Arabian gulf, or in the vicinity of Syria; and even here their power was extremely transient. After the time of Mahomet, Arabia was for about three centuries under the Caliphs his successors; but neither he, nor the Caliphs, could ever entirely subdue their own nation. Many chiefs in the interior parts of the country still maintained their independence, without respecting the Caliph in any other light than as the head of their religion; and the authority of the Caliphs was merely spiritual, except in their dominions over a part of the coast, where they were acknowledged as sovereigns. In the year 342 of the Hegira, a great part of the country was possessed by the Karmatians, to whom the Caliphs were obliged to pay tribute, that the pilgrimage to Mecca might be regularly performed. After the ruin of the power of the Caliphs, the Turks, Arabia shook off the yoke to which it had been partly subject, and was governed, as it formerly had been, by a number of chiefs more or less powerful, defended from different indigenous families. No neighbouring power ever attempted to subdue this country, till the Portuguese penetrated into India, and made their appearance in the Red Sea. Then, in the beginning of the 16th century, Sultan "El-Gury," fitted out a fleet to expel these invaders; and their fleet feized almost all the sea-ports of Arabia. But when the dynasty of the Mamelukes was terminated by the Turks, these cities fell again into the hands of their natural sovereigns. In the continuance of the war between the Turks and the Portuguese, Solomon Pacha, with a powerful fleet, feized all the towns upon the Arabian gulf. His successes pushed their conquests still farther, and subdued great part of Yemen, penetrating into the highlands; so that Arabia became almost entirely a province of the Sultan of Conscientiopolis, and was governed by Pachas, like the other provinces of the Ottoman empire. These events happened, under a lieutenant of Soliman I., A.D. 1538, and under Selim II., A.D. 1568. In the interior parts, however, there were still independent princes and Sheiks, who had never been subdued; but continued to harass the Turks, and to drive them towards the coasts. After various reiterated efforts, a prince of the family now reigning at Sanaa, at length succeeded, about the middle of the 17th century, and obliged the Turkish nation to evacuate all the places upon the Arabian coast, which they had occupied for more than a century. The Turks now profess nothing in this country, says Niebuhr, but a precious authority in the city of Jidda; and it is therefore absurd to reckon Arabia among the Ottoman provinces, since it is properly to be considered as independent of all foreign powers. From the view above presented of the independence of Arabia, the contemptuous reflection of a popular historian (see Gibbon's Hist. vol. ix. p. 299, sect. not justly warranted: who, after observing that "the perpetual independence of the Arabs has been the theme of praise among strangers and natives," adds, "the arts of controversy transform this singular event into a prophetic and miraculous, in favour of the policy of Islam. Some exceptions, that can neither be disbelieved nor denied, render this method of reasoning as indirect as it is superfluous." This reflection was aimed at the authors of the Ancient Universal History, who had observed (vol. xvi. p. 299.), that the manner of life, disposition, power, and government of
of the Sceantine Arabs, now known under the name of Bedouins, as well as their never having been thoroughly subjugated by any foreign power, from the age of Ithmael to the present time, illustrate the truth of a scriptural prediction, 

Gen. xvi. 12. The learned historian himself allows, that, though the kingdom of Yemen has been successively subdued by the Abyssinians, the Persians, the Sultans of Egypt, under a brother of the great Saladin, A. D. 1173, who founded a dynasty of Curds or Ayoubites, and the Turks: though the holy city of Mecca and Medina have repeatedly bowed under a Scythian tyrant; and though the Roman province of Arabia embraced the peculiar wilderness, in which Ithmael and his sons must have pitched their tents in the face of their brethren; yet these exceptions are temporary or local, and the body of the nation has escaped the yoke of the most powerful monarchies. This writer, however, has admirable隐患ed the causes of the freedom and independence of the Arabs, and also the effects thus produced on their disposition and character.

Arabia, like other nations of the east, was partitioned into different tribes, each of which had its chief, its customs, and its sacred rites peculiar to itself; although every family formed a species of domestic government absolutely independent, though distant from one another, without any relations of interest or friendship, they retained certain features which clearly indicated, that they were so many branches sprung from the same stock; all had the same love of independence, and, free in their native defects, they pitied the nations that were subjected to masters. This love of liberty which is the passion of noble and generous minds, was, in them a national fanaticism which, causing them to despise the rest of mankind, prevented their participation in the disorders and crimes which have poisons the source of public morals. The long memory of their independence was the firmest pledge of its perpetuity; and succeeding generations were animated to prove their descent, and to maintain their inheritance. Their domestic feuds were inflected on the approach of a common enemy; and when they advanced to battle, the hope of victory was in the front; in the rear, the assurance of a retreat. The arms and defects of the Bedouins are not only the safeguards of their own freedom, but the barriers also of Arabia Felix; whole inhabitants, remote from war, are enraptured by the luxury of the soil and climate. In every tribe among the Arabs, superstition, or gratification, or fortune, has exalted a particular family above the heads of their equals. The dignities of sheik, and emir, invariably descend in this chosen race; but the order of succession is loofe and precarious; and the most worthy, or aged, of the noble kinfmen, are preferred to the simple though important office of composing disputes by their advice, and guiding valour by their example. The momentary juncture of several tribes produces an army, their more lasting union constitutes a nation: and the tribes and families are held together by a mutual and voluntary compact. In the simple state of the Arabs, the nation is free, because each of her sons disclaims a base submission to the will of a master. His breath is fortified with the austere virtues of courage, patience, and forbearance: the love of independence prompts him to exercise the habits of self-command; and the fear of dishonour guards him from the meaner apprehensions of pain, of danger, and of death. The vigour of their frame is preferred by the laborious enterprises of an active life, that enables them to toil and fatigue. The frugality to which they are conduite by the sterility of their climate, seems to be a virtue in them; and they are thus preferred from the imbecility and idleness that are the result of intemperance either in eating or drinking, and enabled to prolong their life to old age. Their virtues and their vices partake of the influence of their fiturinated climate. That complexional gravity, which renders them insensible to whatever affects the rest of mankind, that scornful indifference and insolent pride with which they regard others, and that torpid insensibility which they manifest, are contracted and nourished in their state of solitude. The gravity and firmness of the mind are indicated in the outward demeanour of an Arab; his speech is slow, weighty, and concise; he is seldom provoked to laughter; his only gesture is that of stroking his beard, the venerable symbol of manhood; and the sense of his own importance teaches him to accept his equals without levity, and his superiors without awe. A more serious charge than any thing already mentioned is brought against the Arabs, and from which it is difficult to justify them: this is the unbridled cruelty prompting them to shed human blood without repentance and without remorse. Their own historians have transmitted to us the fact of Pisistratus, as tellingly as that ferocious people proposed not to make conquests over the world, as to destroy it. "In the study of nations of men," says Mr. Gibbon, "we may observe the caudles that render them hostile or friendly to each other, that tend to narrow or enlarge, to mollify or exasperate the human character. The separation of the Arabs from the rest of mankind has accustomed them to confound the ideas of stranger and enemy; and the poverty of the land has introduced a maxim of jurisprudence, which they believe and practice, to the present hour. They pretend, that in the division of the earth, the rich and fertile climates were assigned to the other branches of the human family; and that the povertv of the outwash Ithmael might recover, by fraud or force, the portion of inheritance of which he had been unjustly deprived. Thus, the feizure of a caravan is not a robbery that can excite in them any remorse. They look upon it as the recollection of their courage, as well as a restitution of property; and hence their errors concerning the right of war have precipitated them into a deluge of crimes.

According to the remark of Pisistratus, the Arabian tribes are equally addicted to theft and merchandise. If a Bedouin discovers from afar a solitary traveller, he rides furiously against him, crying with a loud voice, 'Undres thyself, thy aunt (my wife) is without a garment.' A ready submission entitles him to mercy, resistance will provoke the aggressor, and his own blood must expiate the blood which he precipitated to shed in legitimate defence. A single robber, or a few associates, are branded with their genuine name; but the exploits of a numerous band assume the charactcrs of lawful and honourable war. The temper of a people, thus armed against mankind, was doubly inflamed by the domestic licence of rape, murder, and revenge. Each Arab might, with impunity and renown, point his javelin against the life of his countryman; as in each community, the juridiction of the magistrate was weak and impotent. Holiness was embittered with the rancour of civil faction, and the recital, in prose or verse, of an obloque feud, was sufficient to rekindle the same passion among the descendants of the hostile tribes. In every life, every man, at least every family, was the judge and avenger of its own cause. The nice sensibility of honour, which weighs the infant rather than the injury, sheds its deadly venom in the quarrels of the Arabs; the honour of their women, and of their beards, is most easily wounded; an indecent action, or a contemptuous word, can be expiated only by the blood of the offender; and fuch is their patient inveracity, that they expect whole months and years the opportunity for revenge.

Vol. II.
ARABIA.

A fine or compensation for murder is familiar to the barbarians of every age; but in Arabia, the kinship of the dead are at liberty to accept the atonement, or to exercise with their own hands the law of retaliation. The refined idea of the Arab refuses even the head of the murderer, substitutes an innocent to the guilty person, and transfers the penalty to the bail and most considerable of the race by whom they have been injured. If he falls by their hands, they are exonerated, in their turn, to the danger of reprisals; the individuals of either family lead a life of noise and disruption; and fifty years may sometimes elapse, before the account of vengeance is finally settled. The modern theory and practice, in the revenge of murder, are described by Niebuhr; and the haftier features of antiquity may be traced in the Koran, c. 2. p. 29, c. 17. p. 270, with Sale's observations. The attachment of the Arabs to their customs and opinions, their included life lowering them from mankind, and their contempt of death, which they contemplate with a cold inaptness, were so many causes adapted to render them barbarous. He who depletes life is inaccessible to pity; and no enemy is more formidable than he who is ready to die. Nevertheless, this fanguinary spirit, ignorant of pity or forgiveness, has been moderated by the maxim of honour, which requires, in every private encounter, some decent equality of age and strength, of numbers and weapons. An annual festival of two, perhaps of four months, was observed by the Arabs before the time of Mahomet, during which their swords were religiously sheathed, both in foreign and domestic hostility. But the spirit of rapine and revenge was further attenepred by the milder influence of trade and literature. The solitary peninsula is encompassed by the most civilized nations of the ancient world; the merchant is the friend of mankind; and the annual caravans imported the first fbeets of knowledge and politeness into the cities, and even the camps of the defect. The Arabs have always blenched a very considerable degree of benevolence, hospitality, and politeness, with their ferocity. The same hospitality, which was practised by Abraham, and celebrated by Homer, is still renewed in the camps of the Arabs; and examples of this kind, among them, exceed any thing that can be produced from other nations. The contrary view was held among them in such contempt, that one of their poets upbraids the inhabitants of a certain district in terms of bitter reproach, alleging, that none of their men had the heart to give, nor their women to deny. After the time of Mahomet, they were no less liberal than their ancestors had been. Sale (Pref. Koran, p. 214) mentions the following singular instance. Three men were disputing in the court of the Caaba, who was the most liberal of all the Arabs. One gave the preference to Abdallah, another to Kais, and a third to Arabah. It was proposed, however, for the deputation of the dispute, that each should go to his friend, and ask his assistance. Abdallah's friend fancied him with his foot in the stirrup, mounting his camel, and just setting out on a journey, and thus accosted him; "Son of the uncle of the apostle of God, I am a traveller, and in distress." Upon which Abdallah hastily dismounted, and provided the pilgrim with his camel, its ram, a camel, some veils of silk, and a purse of 4000 pieces of gold. The servant of Kais informed the second suppliant that his master was asleep, but that he had rather relieve his necessity, than awake his master; accordingly, he gave him a purse of 7000 pieces of gold, assuring him that it was all the money they had in the house; and directed him to go to those who had the charge of the camels, with an order for a camel and a slave. When Kais awoke, and was informed of what his servant had done, he gave him his freedom, and asked him why he did not call him; for, says he, "I would have given him more." The third person went to Arabah, who, being dun-dighted, was leaning on two staves, and just coming out of his house in order to attend the hour of prayer. As soon as his case was made known, Arabah clapped his hands, lamented his misfortune, as he had no money, but directed him to take his two slaves. When these were refused, Arabah protested, that if they were not taken, they should be enmischelled; and, leaving the flaver, groped along by the wall. Arabah was pronounced the most generous of the three. The character of Hitam is the most perfect model of Arabian virtue. He is represented, by D'Herbelot (Bibl. Orient, p. 426), as brave and liberal, an eloquent poet, and a successful robber; forty camels were posted at his hospitable feasts; and at the prayer of a supplicant enemy, he reduced both the captures and the spoil. In the desert, and on the roads, the Arabs will carry off the spoils of the traveller, and in a moment afterwards embrace, without inquiry or hesitation, the stranger who dares confide in their honour, and enter their tent. His treatment is kind and respectful; he shares the wealth or the poverty of his host; and, after necessary repose, he is dismissed on his way with thanks, with blessings, and perhaps with gifts. In every inhabited district, fires are lighted up at night, which are called the fires of hospitality, to invite the travellers that mifs their way, or are in want of rest from the fatigues of their journey; and after well regaining them, they are fet forward on their route with the sound of instruments and with presents. Their humanity is also manifest in the modes and degrees of punishment which they inflict on persons convicted of crimes. The Arabs extend their generosity and kindness even to the animals that grow old in their service; granting them the privilege of grazing in the richest pastures, except from every species of labour; and they feed them provender even to the summits of their mountains. In polite and manly, the Arabs vie with the Persians. The common mode of salutation is the "Salâm alaihum," or, peace be with you; in pronouncing which words, they raise the right hand to the heart; but this form is seldom addressed to Christians. On meeting, in their wide deserts, the relations are multiplied; and the hand of a superior is kissed in token of respect, a ceremony which sometimes passes among equals; and hence probably was derived, by means of their Moabish victors, the Spanish expression of kissing the hands. Nor were these the only good qualities of the Arabs; they are commended by the ancients for the adoration and respect that subsist between parents and children, and other kindred; and for the fidelity with which they fulfil their engagements. He who violates the sanctity of an oath, is doomed to grow old in ignorance; and it is with their blood that they fign their alliances, in order to impress upon them a more sacred character. The rights of friendship are deemed inviolable; and when two friends contract reciprocal obligations, they cannot decline them without being treated as prodigals. The primitive form of government, among the Arabs, was of the patriarchal kind; and the same form, according to Niebuhr, has ever subsisted, without alteration, a circumstance which proves the antiquity of this people. Among the Bedouins, or pastoral Arabs, the defendants of the ancient Scipio, it is preserved in all its purity. Of these, some who live in tents, have many sheiks, each of whom governs his own family with a power almost absolute. All the sheiks, however, who belong to the same tribe, acknowledge a common sheik, whose autocracy is limited by
by custom. The dignity of grand sheik is hereditary in a certain family; but the inferior sheiks, upon the death of a grand sheik, choose a successor out of his family, without regard to age, or lineage; succession, or any other consideration, except superiority of abilities. This right of election obliges the grand sheik to treat those of the inferior order rather as associates than subjects, flattering with them his sovereign authority. The spirit of liberty, which animates this warlike nation, renders them incapable of servitude. But this spirit is less prevalent among those who live in towns, or who are employed in husbandry. In the fertile districts of this country, there have been always monarchies, formed either by conquest, or religious prejudices. Such are the present dominions of the sherrifs of Mecca, of the imams of Sina and Makkat, and of some princes in the province of Hadramut. However, as these countries are intermixed by large ranges of mountains, the mountains are occupied by independent sheiks. But, although so many independent sheiks have their domains intermingled through the territories of these several sovereigns, yet nothing of the feudal government appears here. The sheiks possess no fiefs; they have only a sort of property in the persons of the people of their several tribes. Even those who seem to be tributary subjects to the princes within whose dominions they dwell, are not actually so, but they retain their independence, and the tribute they pay is merely that which makes the food of which they are the sort of farmers. Such are the sheiks settled in Syria, Egypt, and over the whole of mount Atlas. This multiplicity of petty sovereigns, occasions several inconveniences to the people in general. Wars cannot but frequently arise among states, whose territories are so intermingled together, and whose sovereigns have such a variety of jarring interests to manage. But, happily, these quarrels are fearfully ever productive of any fatal consequences. An army of a thousand Arabs will betake themselves to flight, and think themselves routed, if they lose seven or eight of their number; and their contrels are terminated as easily as they are excited. It is somewhat surprising, that the Arabs, in a country so rich and fertile, should be so uncomfortably lodged, indifferently fed, ill clothed, and destitute of almost all the conveniences of life. But the cauves are sufficient to account for the effects. As to the wandering Arabs, their poverty is voluntary. They prefer liberty to wealth, pastoral simplicity to a life of contrast and toil, which might be procured for them in a greater variety of vocations. Those who live in cities, or who are employed in the cultivation of the land, are kept in poverty by the exorbitancy of the taxes to which they are subject. The whole subsistence of the people is confined in the support of their numerous princes and priests. The general cause of the impoverishment of Arabia is, without doubt, its having ceased to be the channel of trade with India, since the discovery of the passage by the Cape of Good Hope. Yet, if the lands were better cultivated, this country might, without the aid of foreign trade, afford sufficient resources to supply all its inhabitants with abundance of the necessaries and common conveniences of life.

The houffes of the Arabs are built of stone, and have terraced roofs; but those occupied by the lower people are small huts, formed, for such as inhabit the banks of the Euphrates, of branches of the date-tree, having a round roof, covered with rush mats. The poor spread their floors with straw mats, and the rich with fine carpets. No person ever enters a room, without having first put off his shoes. The men occupy the fore part of the house, and the women the back part. If there are no separate apartments for the different sexes, the Arabs, when they introduce a stranger, enter before him, and cry out, "Tarik," retire; upon which the women instantly disappear. The great have often in their halls balconies with jets d'eau to cool the air. The Arabs practice several modes of sitting; but that to which they recur, for the greatest ease, is folding their legs under their body; but in the presence of superiors, an Arab sits with his two knees touching each other, and with the weight of the body resting upon the heels. The chief amusements of the Arabs are fought at coffee houses, in markets, and publick meetings, which they are fond of frequenting; and in order to give the dolls of domestic life, they recur much to the use of tobacco; and persons of opulence and fashion carry with them a box of odoriferous wood, a piece of which they put into the pipe of a person to whom they wish to show respect; this communicates a fragrant smell and an agreeable taste. Instead of opinion, which the Arabs do not use, they constantly chew "kaad," or the buds of a certain tree, which are brought in small boxes from the hills of Yemen. The lower people addicted to intoxication, smoke, for this purpose, the dried leaves of a sort of hemp, which raises their spirits, and throws them into a state in which delightful visions dance before their imagination. At their meals, they squat themselves upon the ground when they sit; and as they have neither knives nor forks, they use their fingers with great dexterity, and eat all dishes with the hand. The food of the most eminent sheiks is of pilau, or boiled rice. The Arabs repeat always a short prayer before they sit down to a meal; "In the name of the most merciful God!" and every one when he has done retires, pronouncing, "God be praised." As they drink little when they eat, after fasting they drink cold water and a cup of coffee, which they use without either milk or sugar. In Yemen, however, of which the coffee-plant is a native, the use of coffee is rare. The favourite drink of this province is prepared from the husks of coffee-beans slightly washed and pounded; it tastes like tea, and is deemed refreshing. Intoxicating liquors of various kinds are privately used in different parts of Arabia; and they are obtained from the Christians and Jews. The Arabs, in general, are sober, frugal, and abstemious. Their usual articles of food are rice, pulse, milk, butter, and whipped cream. They seldom eat animal food. Of this, mutton is the most common; and the Arabs in the desert use it freely. The common people in Arabia have little other food besides bad bread, made of "dura," by kneading it with camel's milk, oil, butter, or grease. Their grain is bruised with flones, as they have no mills; and in the defect they take their cakes on a plate or gridiron, or on live coals, or on camel's dung, under which they cover it till it is penetrated by the heat. In the towns, they have ovens like ours, and their bread is of barley meal, in form resembling our pancakes.

There is a great variety in the national dress of the Arabs. Their head-dresses consist of fifteen caps laid over one another; some of which are of linen, and the rest of thick cloth or cotton. The uppermost is one richly embroidered with gold, and some sentence of the Koran; and over all they wrap a large piece of muslin, ornamented at the ends, and flowing loose upon the shoulders, with silk or golden fringes. The Arabs of the common class wear only two caps, with the face carelessly bound on the head. Some have drawers and a shirt; but the greater number have only a piece of linen about their loins, a large girdle, and a piece of cloth upon their shoulders; in other respects they are naked, having neither shoes nor stockings. In the highlands, where the weather is colder, the people wear...
sheep skins; and in the night, as a security against insects, they sleep in facks. Perfumes of middle rank wear sandals instead of shoes. The ordinary dress of the Arabs is very simple; but they have also a sort of great coat without sleeves, called "abba," which is still more simple. In several parts of Arabia, the men wear no drawers; but these, with a large shirt, are the whole dress used by the women. In several provinces, they wear different sorts of veils. All wear rings on their fingers, arms, nose, and ears. They display their nails red, and their hands and feet of a brownish yellow, with the juice of the alhena; and they paint the circle of the eyes, and even the eyelashes, black, with a preparation of lead ore. The women of Yemen also make black punctures in the face, to improve their beauty. Every body, without exception, wears the beard of its natural length; but the Arabs keep their mustachios very short. The fets are forbidden the use of the turban, using instead of it a small bonnet; nor are they permitted to dress in any colour but blue. The dress of the Bavians settled in Arabia, consists of a red turban of a particular form, a piece of white linen upon the shoulders, another about their loins, and flippers.

The Arabs are attached to certain customs, which they inherit from their progenitors, and which they observe in common with other oriental nations with which they have no immediate connexion; and this circumstance seems to prove that they have been led to them by the nature of their climate. As cleanliness is indispensably necessary to health, the founders of several sects have enjoined particular purifications and frequent ablutions as a religious duty; and the Arabs are scrupulous in the observance of the precepts that enforce them. They not only wash, bathe, and pare their nails very often, but cut away all hairs from the body. The painful rite of circumcision, which they adopted from Ishmael, has been retained under the persuasion that it checked the ravages of particular diseases; and hence the practice of circumcising girls is general in the same countries where boys are circumcised. The distinction of meats into allowed and prohibited was a lesson deduced from experience, teaching that such animals as have an influence on the physical constitution, had in like manner a secret influence on the moral; and therefore a direct police was authorized to interdict the flesh of the hog, and other unclean animals, that might at once be prejudicial to the health and to morals. With similar views, Mahomet, and some other founders of sects, have affixed ideas of spiritual impurity to the act of touching a dead body.

Polygamy, which was authorized by the example of the patriarchs, has been perpetuated in Arabia; but the Arabs seldom avail themselves of the privilege of marrying four lawful wives, and entertaining at the same time any number of unlawful ones. None but rich voluntaries marry so many, and their conduct is blamed by all sober men. An Arabian, in moderate circumstances, seldom marries more than one wife; and as the husband is by law obliged to treat his wives suitably to their condition, and to dispense his favours among them with perfect equality, the privilege of polygamy is thought rather troublesome than convenient. Besides, divorce may be obtained without much difficulty: though the Arabsians never exercise the right of repudiating a wife, unless urged by the strongest reasons, because this is considered as dishonourable, and entails disgrace on the woman and her relations. Wives are entitled to demand a divorce, when they think themselves ill used by their husbands. The Arabian women enjoy a great portion of liberty, and often, of power, in their families. Their dowries, and the annual income which they afford, remain at their disposal during marriage; and, in the case of divorce, the whole of their own property is referred to them. Some travellers have absurdly said, that the Mahometan wives are all slaves, and so entirely the property of their husbands, that they are even inherited by their heirs. This representation confounds slaves that have been purchased with women of free estate, who despise of themselves in the East as they do in Europe; and the erroneous opinions seem to have arisen from the equally mistaken notion, that fathers in Arabia sell their daughters to the highest bidder. The case is so much other-wise, that every man, in tolerably easy circumstances, instead of selling his daughter, strives to give her a dowry, which may continue her own property. The marriage is made out by the Cadi, and signed in his presence; and it incurs to the wife not only her dowry, but also a separate maintenance in case of a divorce. Many ridiculous stories have been related of the tests of virginity which an Arab expects when he marries a young woman; but most of these stories greatly exaggerate the truth. The Bedouins and the highlanders of Yemen, a rude and shabby savage race, do indeed regard the want of these tokens as a mark of dishonour, and send a woman back to her relations, when her chastity cannot be thus evinced; but the more civilized inhabitants of the towns seldom or never concern themselves about such trifles. Many superstitious observances respecting marriage still prevail in Arabia. The Arabs believe in the virtue of enchantments, and in the art of tying and untying the knots of fate. The miserable victim of this art addresses some physician, or some old woman; for the old women are always skilled in forcery. The Christians of the East have still a more certain remedy against the effects of witchcraft. They lay mallets for the afflicted person, and the honour of his cure is always ascribed to the influence of these mallets. In Arabia there are no eunuchs; and the Arabians abhor the cruel operation which is requisite to render a man a fit guardian of the chastity of a harem.

The characters of nations are very much formed and modified by climate, government, and education. To the first of these the Arabs owe their vivacity and their disposition to indulgence: the second increases their thrift, and gives them a spirit of duplicity; and the third is the one principal cause of that formal gravity which influences the faculties of their minds, as well as their carriage and exterior aspect. The mode of education among the Arabs is very different from that of the Europeans. The former strive to attain the age of maturity, as much as the latter endeavour to retard it. The Arabs, says Niebuhr, are never children; but many Europeans continue children all their lives. As soon as boys in Arabia leave the Haram, about the age of five or six years, they are accustomed to think and speak with gravity, and to pass whole days in the company of either fathers or preceptors. As music and dancing are esteemed indecent among the Arabs, women are also excluded from all amusements, and the use of strong drinks is forbidden. The young Arabs thus become penive and serious even in infancy. Nevertheless they have in reality a great degree of vivacity, which varies in the different provinces. This vivacity makes them fond of company and of large amusements, notwithstanding their seeming sternness. Several travellers accuse the Arabs of being cheats, thieves, and hypocrites. An arbitrary government, which impoverishes its subjects by extortion, can, indeed, have no favourable influence upon the probity of the nation, yet Niebuhr avers, from his own experience, that such accusations have been exaggerated beyond the facts. The irritable and vindictive spirit of the Arabs has been already noticed.

The Arals, proud of their remote origin, have always made
made their genealogies a subject of serious study; and as their ancestors could neither read nor write, they were unable to transmit to them the records of their descent; and for the same reason, it is impossible to convict them of error. For about thirty-six centuries, however, the sultans have been deposited in the public archives. This custom, which is religiously observed, is said to have been introduced by Arab, one of the ancestors of Miah of Sebait, a people to be remembered, that has not contravened any foreign alliance, and which, in its Solitary leisure, is always occupied about the interests of its vanity, may rarely have preserved the remembrance of its ancestors, and the feries of its generations. All those petty princes, who govern in Arabia, are very proud of their birth, and this pride may be ascribed to the independence and sovereignty power which their families have enjoyed from time immemorial. The nobility, who are free, or dependent only on the chiefs of their tribes, are infected with the same vanity. What adds to the high concoct which the Bedouins have of their nobility is its being communicable, and not to be transferred by any foreign prince, nor even by the caliphs. The descendants of Mahomet are those who hold the first rank among the great families in Arabia. These descendants have received different titles; in Arabia, they are called Sheikhs or Sejids; in the Mahometan countries situate northward, Sheikhs or Emirs; and in the Arabian colonies in the east, simply Sejids. Of all the titles in use among the Arabian nobility, the most ancient is that of Sevian or Sejiz. Other families that are anxious to preserve their genealogies, are those that are descended from the tribe of Koreish, and who have held, by hereditary right, certain employments since the days of Mahomet and his succours. The Arabs seem still to be vain of those long names which are so disgusting in their history; but their length of names and titles is occasioned by the difficulty of distinguishing individuals among a nation that knows not the use of family names.

Although in Arabia there are neither numerous academies nor men of profound learning, yet the Arabian youth are not entirely neglected. In the cities, many of the lowest rank are taught both to read and write; and the same qualifications are also common among the sheikhs of the desert, and in Egypt. Persons of distinction retain preceptors in their families to instruct their children and young slaves. In almost every mosque is a school, having a foundation for the support of teachers, and the entertainment and instruction of poor scholars. In great towns, there are likewise other schools, to which people of middle rank send their children to receive religious instruction, and to learn reading, writing, and arithmetic. There are no girls taught in these schools, but they are privately taught by women. Besides these schools, there are more considerable seminaries of learning in some of the great towns of Arabia. There are colleges in which the sciences of astronomy, astrology, philosophy, and medicine are taught; but the Arabs, for want of books and good masters, make little progress, and their attainments are very partial and imperfect. In the dominions of the Imam, there have been for a long time two famous academies; one at Zebis for Somnites, and the other at Damir for the Zedites. The chief employment of men of letters among the Arabsians is the interpretation of the Koran, and the study of the ancient history of the Mahometans. Some seeds of the sciences seem to have sprung up in Arabia before they were known to other nations. They were the first who studied the laws of the heavenly bodies. A roaming people, in a region lying beneath a fereau and cloudsless sky, folly employed in tending their flocks, either in the open plains, or on the tops of mountains, must, at an early period, have acquired some knowledge of the planets and the stars; and it appears a predilection of their having been among the first astronomers, that the names which denote the different constellations, are taken from the different species of animals known in those parts, and many of the stars are called by their names. Their knowledge, however, was neither very accurate nor very extensive. It was derived from long observation and experience, and not from any regular study or astronomical principles and rules. The Arabsians, as well as the Indians, chiefly refrained themselves to the observation of the fixed stars, and in this they differed from other nations, whose observations were almost confined to the planets; and they foretold their effects from their influences, not from their nature; and hence, it hath been said, arose the difference between the idolatry of the Greeks and Chaldeans, who chiefly worshipped the planets; and that of the Indians, who worshipped the fixed stars. The fixed stars in which they most usually observed the weather, were those they called "Anwa," or houses of the moon, which were twenty-eight in number, and divided the zodiac into so many parts, through each of which the moon passes every night; and from their rising and setting, the Arabs, by long experience, observed the changes that happened in the air; and at length they were led to assign a divine power to them, saying that their rain was from such and such a star, which expression Mahomet condemned and prohibited. The old Arabsians, therefore, seem to have made no farther progress in astronomy, which science they afterwards cultivated with so much success and applause, than to observe the influence of the stars on the weather, and to give them names; so that they became astrologers and magicians, rather than astronomers. The infancy of science is generally infected with an inclination to the marvellous; accordingly, in Arabia, pretended sages arose who boasted of understanding the language of birds; and others, profaning the name and office of prophet, retired into caverns and deserts, where, after long fasting and painful meditations to gain the favour of the deity, they were gratified with visions, which they solemnly related to the multitude, who could not discern the impostor concealed under the figure of a pale and haggard being, often covered with wounds and ulcers which they fondly and foolishly imagined to be the marks of sanctity. It was likewise in that part of Arabia, which borders on Egypt, that the swarms of adventurers startled up, who, wandering on the globe, without a native home, under the appellation of gypsies and fortune tellers, procure a wretched livelihood by their tricks from the stupid vulgar. It was with arrows, divinity rods, philters, amulets, and charms, that these vagabond impostors, by pronouncing certain mysterious words, practised their magical operations, and imposed on the credulity of mankind in an age of ignorance: such was the Arabian expression for the period that preceded the time of Mahomet. The Arabians, even in a later period, delibrate of books and instruments, have made little progress in astronomy. Although it is known to all men of sense in Arabia, that eclipses are owing to the intercession of one heavenly body by the interposition of another, yet the multitude still maintain the absurd opinion, that a huge fish pursues the planet which is eclipsed; and women and children ascend the roofs of their houses, and make a hideous noise with brazen kettles and basons, in order to chase away the fish. The Arabians, indeed, at this time, seem to study astronomy solely with a view to their successes in the cultivation of astrology, which is a science highly esteemed, and very lucrative, in the east. The occult sciences, as they are called, are in high estimation.
ation among the Arabsians. One of these is denominated "Im Allah," or the science of the name of God, which is the most sublime of all: for God, they say, is the lock, and Mahomet the key; and consequent there is but Mussulmans even acquire it. It enables its possessor to discover what is passing in the most distant countries, to make himself familiar with men, and to oblige them to obey his pleasure; to dispose of the winds and seasons as he chooses; and to cure the bites of serpents, and many other diseases and infirmities. To this science, the absurdity of which is evident from the mere mention of it, belongs also the art of discovering hidden treasure; and in this the Magrebs, or Arabsians of Barbary, are known to excel. The art of procuring sublimed vitrulions is also known to the Arabsians. The second of the occult sciences, called "Simia," teaches juggling tricks, and this is practised even by some orders of the dwarfs to prove the truth of their religion and the faculty of the founder of their order. The science of "Karra" teaches a person to compose billets which excite him that wears them from the power of enchantment, and from all sorts of accidents. These billets are inclosed in small purses of skin, and worn on the head, arm, or breast; and bound for particular purposes upon the necks of horses or asses. The science of "Ramle" is the art of fortune-telling; and that of forcery is called "Sihrr, which is applied to many infamous purposes. Alchemy is still in vogue among the Arabsians.

The grave and serious sciences that depend on calculations and reasoning could not make any great progress among a people governed by an imagination always hearted, and almost incapable of direction and restraint. These sciences, banished from the climate bordering on the tropic, have been replaced by the agreeable arts that delight in the irregularities and disorders which affront the mind, and captivate the heart. In Arabia we find the cradle of poetry and eloquence, which had scarcely appeared before they arrived at a sudden maturity. The Arabs are all poets and orators: for an account of the poetry of the Arabs, see Arabian Poetry. Among the ancient Arabs, eloquence was an accomplishment for which they valued themselves. Their orations were of two sorts, metrical and profaic: the one being compared to clouds floating, the other to loofe ones. They attempted to excel in both; and whoever was able, in an assembly, to persuade the people to a great enterprise, or to diffuse them from a dangerous one, or gave them any other judicious advice, was honoured with the title of "Khatib," or orator, which is now given to the Mahometan preachers. They pursued a method very different from that of the Greek and Roman orators; their fentences being like loose gems, without connection; so that this sort of composition struck the audience chiefly by the fulness of the periods, the elegance of the expression, and the acuteness of the proverbial sayings; and so confident were they of their pre-eminence in this way, that they would not allow any nation to understand the art of speaking in public, except themselves and the Persians; and the Persians were reckoned, in that respect, says Pococke (Spec. 161), much inferior to the Arabsians. In Arabia, eloquence is not now much cultivated. Occasions for the exercise of it very rarely occur. The Arabsians, however, tell us that they have great orators in their mosques. The only theatres for the exercise of profane eloquence are the coffee-houses, which are commonly large halls, having their floors spread with straw mats, and illuminated at night by a multitude of lamps. The guests are served with pipes and a cup of coffee. They are also amused by readers and orators, who are commonly "Mullabs," or poor scholars, and who either read or repeat passages from some favourite authors, or recite tales and fables of their own invention. When the orator has ended, he obtains a voluntary contribution from his hearers.

It was Arabia that gave birth to the Apologue, a method of instruction, which, in all ages, has been in use among the oriental nations, who love to conceal under a mysterious veil the most trivial subjects, in order to give them an air of dignity. The Arabs especially have displayed their subtlety in the solution of enigmas. They boast of having produced a Lokman, surnamed "Al Ham," i.e. the wise or the sage, whose fables bear too great a resemblance to those of Aesop, to admit a doubt concerning the identity of their performer. Some, however, have thought it more likely that the compiler of these fables had been those of Aesop, and chose to invent some of them in his own collection. This celebrated fabulist has served as a model to all those who have come after him; and the Arabsians have thus, guided by their own genius alone, drawn from its native funds those riches which others have reciprocally borrowed of their neighbours. For the Arabic characters, chronology, language, music, philosophy, physics, poetry, and religion; see the following articles.

The mechanical arts could not well be brought to any considerable degree of perfection among a people who knew but few wants. As their productions are less splendid than useful, it is rather in towns than in the bosom of defects that they grew up, because necessity is the parent of industry. The Arabs, entirely occupied in warring against man and beast, excelled only in the manufacture of scymetars, bows and arrows, and darts; nor, as it has been already observed, have they made any great progress in modern times. Their cotton stuffs were never greatly esteemed; and few of their other manufactures are the produce of the skill and labour of native Arabsians. Sale's Koran Pref. Anc. Univ. Hist. vol. vii. p. 242—327. Arabic References, vol. ii. p. 11, &c. Niebuhr's Travels through Arabia, &c. paffim. Pinkerton's Mod. Geog. vol. ii. p. 406—430.

ARABIC, or ARABIAN, something that relates to Arabia, or the Arabs.

ARABIC Characters or Figures, are the numerical characters commonly made use of in mathematical computations; and they are also contradistinguished from the Roman. Concerning the origin of these figures, see Figures.

ARABIC Chronology. The Arabs divided their year formerly, as is now the case, into twelve months, to which they gave names; but an ancestor of Mahomet gave them new names deduced from certain events happening in every month; and the old ones were, by the authority of Mahomet, totally abolished in every part of Arabia. The year was also anciently divided into six feasons, viz. 1. The feason of herbs and flowers; 2. Summer; 3. The hot feason; 4. The feason of fruits; 5. Autumn; 6. Winter. The ancient Arab year was lunisolar; but the custom of intercalary months, in order to make the course of the moon agree with that of the sun, was abolished by Mahomet; and the learned now reckon by months corresponding to the course of the solar year, and confiding of the same number of days with ours. See Year. The Arabs, like the Egyptians, Indians, Greeks, and Romans, anciently computed their time by weeks, or periods of seven days, as we learn from a very ancient poet, who died many ages before the publication of the Koran. The Arab day consists of twenty-four hours, and falls from sun-fetting to sun-rising; so that their hours are of uncertain duration, and vary with the length of the natural day, or the time during which the sun is above the horizon. The different parts of the day, as they have no peculiar idea of the duration of their hours, are distinguished by vague and uncertain denominations.
Afterwards the vehicle diffolves folid white. The heat of simple yellow, important, and becomes does it water voluminous pale almond, from but powder, has thick larger in walnut, the from j.

The settlement at Senegal is another great mart for this commodity; and the gum, which bears the name of this place, is generally in larger masses, and of a yellowish or amber colour, but it does not feemibly differ from the Egyptian gum in any of its properties.

This mucilage exudes spontaneously in a liquid flate from the trunk and boughs of the tree, andhardens by contact with the air and the heat of the sun. It begins to flow about December, immediately after the rainy feaion, near the flow-er time of the tree. Afterwards as the weather becomes hotter, incisions are made through the bark, to affift the transudation of the juice.

The best gum arabic is brought over in oblong or roundi6 humps seldom bigger than a walnut, nearly transparent, white, or of a pale yellow, wrinkled, and of a flaming fracture. It is so brittle as easily to be reduced to a fine powder. It is also perfectly infipid and inodorous, diffolving in the mouth into a channy liquid.

As the gum arabic is the most perfect specimen of a gum mucilage, all the properties which we shall now mention to belong to it, may be considered as descriptive of this whole class of chemical subllances.

The habitudes of this gum with water affords one of its most striking characters. When added to water, either cold or hot, and not less than twice its weight, it diffuses slowly, and converts the whole into a very flimsy viscid li-Quor. Heat does not coagulate this solutian; a gentle evaporation will expel the water and leave the gum as solid and as before, equally soluble in water, and unaltered in any of its properties.

Thus in respect to its diSsolution, it differs in a striking manner from most other vegetable subllances.

It is entirely insoluble in ardent spirit and in oils; alcohol indeed coagulates the watery solution, by uniting with the water, and thus precipitating the gum.

Gum mucilage is but little inflammable, when put into the fire it swells and grows puffy, and soon is reduced into a voluminous coal. Distilled per fe in a retort, it first yields a limpid water, then an acid (which was at one time sup-posed to be peculiar, and was termed the Pyro-mucous), and afterwards a thick empyreumatic oil, and a little volatile alkali, like all the diSSolutions of vegetable matter.

The pure gum mucilages, when dry and solid, will remain unchanged for any length of time: the watery solution is likewise the least alterable of all the vegetable liquids; but by long keeping it becomes four and grows mokly on its surfaces, if it is prevented from drying up by the evaporation of its water.

When nitric acid is distilled off gum arabic, or any other of the gum mucilages, a peculiar acid is formed, which appears as a white powder of difficult solution, and has been termed the Mucous acid. It is the same with the Sacchro- lactic acid of Scheele.

The specific gravity of the solid mucilages, according to Fourcroy, is from 1.3 to 1.48.

The gum which exudes in considerable abundance in our own climates from the apricot, plum and cherry trees, bears the strongest resemblance to the gum arabic in all its properties; only it is generally of a yellow colour, not so brittle, and forms a mucilage of somewhat inferiority.

Gum arabic is employed for a number of valuable purpo- ses both in the arts and in medicine. It may be used either to suspend in water a number of subllances which could not otherwise be kept equally diffused in this liquid, or as a means of gluing together a variety of articles of light work; and as a clean colourlefs cement perfectly easy of application, and which may be prepared in a few minutes, it is peculiarly valuable. Gum Senegal is used in very large quantities by the calico printers, to mix the colours and the mordants in block printing; gum arabic forms the basis of crayons, and the cakes of water colours, and of sev-era1 liquid colours, of which common writing ink is a familiar example.

All the gum mucilages are considerably nutritious; in the countries where the gum arabic and senegal grow native, it forms an important article of food, either by itself, or mixed with milk, rice, &c. Hasdrubal relates an instance of the travelling of a large caravan, who had consumed all their provisions in the middle of their journey, preferring themselves from famine by the gum arabic—which they were bringing as merchandise.

In medicine, this gum is employed, either by itself, or as a vehicle for other subllances. Taken internally, it has been suppos ed to be incraftful and obtunding; qualities, however, which probably have little foundation in fact and real observation. As it is simply mucilaginous, it will cer-tainly in some degree protect the parts with which it comes in contact from the effect of any acid and stimulating subllances; and thus it is of use in quieting the tickling cough which arises from any acrimony in the faxes, and in some faxes it is of material service in diarrhoea and dysentery. It is given either in powder, or diffused in water, almond milk, &c; and one ounce of the gum is sufficient to give a considerable thickness to a pint of liquid, without making it too flimy to drink with pleasure.

In pharmacy, gum arabic polishes the valuable property of rendering miscible with water the balsams, refined or spirit and similar subllances, which may be very conveniently modiously taken in a liquid form. One part of gum arabic previously moistened with water (or an equivalent quantity of the mucilage), will thus render four parts of balsam or oil soluble in any watery liquor, and will form an uniform emulsion. Even mercury may be thus sulfcnded in water, by being previously rubbed for a considerable time with gum arabic, which preparation is called, from the inventor, Plank's solution. The corrosive acids, when taken internally, are belt diffused with a solution of this gum.

The pharmaceutical preparations, in which gum arabic enters as a principal ingredient, are the Mucilago gummi Arabici, a simple solution of one part in the gum in two parts of boiling water; the Mulinof Abritica Ph. Edin, which is gum arabic diffused in almond milk; the Treubii Arabi, with gum arabic, and fch ond fugar; and the Pulvis tragantii compositus Ph. Lond., a powder made of tragantia, gum arabic, fhar, and fugar. Murray Ap- par. Med. Fourcroy, &c.

Arabic language is derived from the same fwork with the Hebrew, Syriac, and Chaldean tongues. Its near affinity to the Hebrew is almost universally acknowledged, and owe have eum maintained, that it was not only a literar dialect of this
ARABIC LANGUAGE.

this language, but in its original and unsoiled state, pure Hebrew. Of course it must unquestionably be one of the most ancient languages in the world. The Arabs, by whom it was spoken, having inhabited the country now possessed by their descendants almost from the deluge, without intermixing with other nations, or being subjugated by any foreign power, their language must have been formed soon after, if not at the consummation of Babel. The Arabian writers ascribe it to Joktan, the son of Eber, and its name to Yarab, the son of Joktan or Kahtan, supposed to be the fame that is mentioned, Gen. x. 26. This opinion is adopted by many learned moderns. See Hunt, Orat de Antiqu. et Eleg. Ling. Arab. p. 1. Pococke Spec. Hist. Arab. p. 29. Bachart in Georg. Sacr. c. ii. e. 15. Golinus, in Lex. Arab. Schultens, in Orig. Hebr. The two principal dialects of this language were, that spoken by the Hasmites and other genuine Arabs, and that of the Korish in which Mahomet wrote the Koran. The Hasmite dialect is supposed to have approached nearer to the purity of the Syrac, and consequently to have been more remote from the true genius of the Arabic than that of any other tribe. The dialect of the Korish, usually termed the pure and ancient Arabic, and in the Koran the perfidious and clear Arabic, is referred to Ishmael as its author, who, according to the oriental writers, first spoke it; and, as Dr. Pococke apprehends, after he had contrived a matrimonial alliance with the family of Jorham, formed it of their language and the original Hebrew. This latter dialect of the Korish was conceived to consist chiefly of the Hebrew; but its politeness and elegance should rather be ascribed to their having the custody of the Cæsa and dwelling in Mecca, the centre of Arabia; for by their situation, they had less intercourse with foreigners, who might have corrupted the language, and were more frequented by the Arabs of the whole circumjacent country, who returned to Mecca on a religious account, and for the accommodation of their differences; from their discourse and veris the Korish took the words and phrases which they judged to be most pure and elegant, and thus the beauties of the whole tongue were transplanted into this dialect. Other circumstances also contributed to the improvement of this dialect. Of the pilgrims who returned to Mecca, many were of the first rank, and possessed all the science of their country and age. In the great feasts which were held during their stay in this city, a variety of amusements occupied their attention, and literary compositions, which called forth an emulation to excel, formed some of their principal entertainments on these occasions. Hence the dialect of the Korish, the noblest and the most learned of all the western Arabs, became the purest, the richest, and the most polite of all the Arabian idioms; and about the beginning of the seventh century, it was the grand language of Arabia; the other dialects being either gradually disused, or incorporated with it. By this union, and by commercial intercourse with Alexandria, the seat of learning, and with other places where they might obtain an acquaintance with Grecian literature, the Arabic language acquired a facility and also an elegance, in a great degree peculiar to itself.

The Arabs are so extravagant in the commendations of their language, that they not only represtent it as peculiarly harmonious and expressive, but they also say, that it is so copious and comprehensive, that no uninspired person can be a perfect master of it in its whole extent. To this purpose it has been alleged, that this language has 550 names for a lion, 200 for a serpent, more than 80 for honey, and above ten for a sword. Nevertheless, the Arabs believe that the greatest part of their language has been lost; and this opinion is not very improbable, when we consider how lately the art of writing was introduced into Arabia. To this purpose Dr. Robertson (ubi infra) has observed, that the genius of the Arabic language resembles that of the Hebrew; as all its primary or radical words are composed of different combinations of consonants by trilites, so that the various combinations and equivalents of three letters form more than 10,000 roots, without including those which may arise from the concord of guttural letters. To this quality of the language he partly ascribes that flexibility or permanence which this language possesses in common with the Hebrew, by reason of which it has retained its purity and integrity for so many thousand years, without those changes and fluctuations to which other tongues have been subjected. Sir William Jones also observes (Afric. Refer. vol. ii. p. 6.), that the Arabic roots are universally triliteral, the composition of the twenty-eight Arabic letters would give 12,300 elements of the language; and this circumstance demonstrates its surprising extent; for although great numbers of its roots are confessedly lost, and some perhaps were never in use, yet we suppose 10,000 of them, without reckoning quadriliterals, to exist, and each of them to admit only five variations, one with another, in forming derivative nouns, even then a perfect Arabic dictionary ought to contain 50,000 words, each of which may receive a multitude of changes by the rules of grammar. To this circumstance it is probably owing, that the Arabic, and also all its other dialects, abhor the compositions of words, and invariably express any complex ideas by circumlocution; and this genius of its language has been one source of its copiousness and extent. And yet, notwithstanding the variety of its words, in which it is far superior to the Greek and Latin, and indeed to most other languages ancient and modern, it is equally distinguished by its perplexity and precision. This excellence of the ancient Arabic, this union of brevity and variety, by which it is able to express with clearness and energy what could not be described in other tongues without hideous circumlocutions, is particularly mentioned and illustrated, among other distinguishing qualities of this language, by the learned Pococke in his "Orations on the Arabic language."

Dr. Robertson has cited an apposite passage to this effect, which is here subjoined for the satisfaction of the curious and learned reader. "Necque in nullâ certe laudis parte, mira ilia (inguit dçthnàmivm Pocockiis), quâ non folum verborum in significando penipœleavit, sed in protolone elegantiæ et duxesìnius cavuit, fedulis; quâque non folum accuratâ inter literas et significatione proportione, fœnus vel intentionem vel remissione, prout res polluaverit, literarum appositione, substutione, vel juxta ornam omnium ratione, proficiscunt; sed et nequitianelius auribus, ne quid horribilum aut usu pepote repersiciit, effecerunt. Hoc in genere eft, quod nulpa in verbo ab eo, genuine apud Arabis originis, concurrent, non intercedente vocalis alicujus motione, consoalien, cum vel tres vel plures, alia in linguis frequenti collaudata. Immo necque, licuit adiunct, quæ apertitati remedió sunt, vocales, qualibet tamen temere committunt consoalien; sed si ríam natura polluat, ut concurret debeat illa, quæ licet invicem fine apertitati alicujus inducitione consecui, et inter se conciti non pollat, illi vel òstas vel literarum mutatuonem, eius abhijendo, subiecto, emolendo, alifice quibus polluit modi, remedia quaerunt; adeo ab omnibus, quod vel absumum ve duium eft, abhorrent. Quod si nobis facus videatur, et apertiter, nonante Arabibus prolata, illud auribus, nolisis vel ufo, non linguis imputandi; nec mollius illis nolisis, quam corum nolisis confecundum. Quin et gutturalium, quae nobis..."
nobis maxima sideratis causa videtur, abstentiam, ut magnum in linguis Graecae defectum, argumentu Arabum.

The learned Dr. Hunt, late professor of the Hebrew and Arabic languages at Oxford (in his Orat. de Ling. Arab. p. 17.), expresses his opinion of the excellencies of this language much to the same purpose: "Nil Quibus mihi ereditoe (inquit), auribus magis parcitum, quam in Arabiis; nulla lingua a xxxxxx omnii alienorum, quam Arabica. Quaenam enim nonnullae ejus literae minus fortasse iuicere, immo durum ctiam sonantur, ita tamen Arabes eas temperamentum, ut afferam cum lenibus, duras cum molibus, graves cum acute, miscendo, voces inde non minus audita auderint, quam pronunciati facies consercent, totique fenones mirum sonum tam dulcedinis quam variatatem.

Quod quidem orationes modulanda Rudens in Corano adeo manifestum cit, ut primi Islamii oppionantes cum librum magicae ideo arte scriptum dixerint. Nec auribus tamot gratios cft Arabifmus, sed et amni constitantur expressiones aptas, nonus suis fortissimae tempfer accommodans, et felici verborum juncture ipsum rerum naturam depingens. It is needful to multiply testimonies of a similar kind, extracted from the writings of Bochart, Erpenius, Golinus, Schultens, &c.

Some have maintained that the Arabic tongue defended from the deluge to the time of Mahomet in its original purity; but that it should remain altogether unaltered for a period of more than 3000 years, is not very probable. Whatever care might have been taken of it, however tenacious the Arabs were of their ancient customs and institutions, and however favourable their situation might have been for preferring the language unmixed, it is not likely, nor indeed can we conceive it to be possible, that it should have escaped a variety of changes in that long period; or that it should not have acquired in its progress downwards from the mere lapse of time, from necessity or voluntary interchange with different and neighbouring nations, and from a variety of other causes, diminutions or additions, or intermixtures, which render the words, idioms, and phrasology of the Koran very different from the Hebrew, Syriac, or Chaldaic, to either of which the ancient Arabic must have been nearly allied. But these changes affected merely or principally the dialects of the language, while the substance or marrow of it, as Schultens calls it, remained untouched; and comprehended the letters, vowels, and pronunciation.

Dr. Robertson, professor of oriental languages in the university of Edinburgh, in an elaborate dissertation, "De Origine, Antiquitate, Conversatione, Indole, et Utilitate Linguae Arabicae," prefixed to his "Chloris Pentactchii," is an able and zealous advocate for the unpolluted purity of the ancient Arabic; infomuch that it did not degenerate from its original purity in the same manner as the Spanish, Italian, and French dialects have degenerated from the Latin stock. This opinion is sanctioned by the authority of the learned Schultens, in his Orig. Heb. vol. ii. p. 26, 211. Orat. Ling. Arab. p. 28, and by several others, who have been well acquainted with the structure of the Arabic language, and with the history of the ancient Arabs. Without deviating into the unfounded extreme of Hitchenon, who ascribes a comparatively modern origin to this language, and traces it no higher than the age of Mahomet, we may allow that such changes as have been already mentioned might have been introduced into it, without disputing its antiquity, or upon the whole its uncorrupted state for many ages previous to the time of Mahomet. This celebrated impostor indeed makes his boast, that the language of the Koran was the same, with respect to its purity and perfection, with that which was anciently used by Abraham and Ishmael. Dr. Robertson (ubi supra) maintains, that the Arabic language

Vol. II.
were different from the Hymaritic; and though far from being either convenient or beautiful, they were long used by the Arabs. They were denominatet Cufic from Cufa, a city of Irak; and in this character the Koran was first written. These letters are also used occasionally, at this day, by the Arabs for the titles of books and public inscriptions. The more elegant and expeditious character that is now used, was first formed from the Cufic by Abulali Ebn Moklah, vizar to the caliph of Bagdad, about 520 years after Mahomet, and perfected by Ali Ebn Bawah, who died in the year of the Hegira 419, A. D. 1022. Herbelot, Sale, and Dr. Hunt inform us, that the person, who completed and reduced it to the form in which it now exists in some of the most beautiful copies of the Koran, was Yakut Al Mofalaem, the last of the caliphs of the family of Abbas, a little after the year of the Hegira 640, A. D. 1242; for which reason he obtained the appellation of "Al Khattat," or the scribe.

Concerning the chaos of the invention of the Arabic vowel points, there has been a difference of opinion among the learned. Hottinger (Tract. Philolog. p. 400. 410. Tiguri, 1659) maintains and addsuces testimonies from the Arabian writers to prove, that vowels were in use from the most ancient times. But they are not now the same as they were formerly. A single point, in the most ancient copies of the Koran, denoted different vowels, according to its position above, below, or within the letter. Schultens (Clav. Dinelch. p. 322. &c.), speaking of the improvement of the Arabian alphabet in the 10th century by Ebn Moklah, says, that its form, at this time, underwent a change; and that its former clumsy embarrascd character was made to give way to the polished, easy, and expeditious type. Regarding this expedition above, the author of the invention left very few vowel characters; and as the Hebrew mode of writing admits five long ones and five short ones, in different shapes, he taught how to express all the vowels, both long and short, agreeably to the genius of the language, by three, or rather by two, small points, without any danger of mistake; an abbreviation truly admirable, and worthy of being recorded! For by placing a small line above 

\[ \vspace{1cm} \], he expressed the sounds of a and e, and by placing the same below, \[ \vspace{1cm} \], he meant to express i only. To the other short ones 

\[ \vspace{1cm} \] and \[ \vspace{1cm} \], he assigned a small vowel, or so above, as \[ \vspace{1cm} \].

For representing the long ones, he used the "matres lectionis," or quiescent letters, \[ \vspace{1cm} \], \[ \vspace{1cm} \]. So that 

\[ \vspace{1cm} \] expressed a and e long, that is lamda and hlam; and 

\[ \vspace{1cm} \] placed after kafam became teer and chibk long, and 

\[ \vspace{1cm} \] added to dama became shurek. From this statement we may infer that, before the tenth century, the Arabs had no vowel points; and consequently that they read without vowels, or contented themselves with the "matres lectionis" above mentioned. Dr. Gregory Sharp, in his "Dissertation upon the Origin, Contraction, &c. of Languages," p. 87, expresses his opinion, that the Arabs were the original authors of the vowel points; and that they invested three called fatba (a) and (e), damma (o) and (u), and lafer (i). But these, he conceives, were not in use till several years after Mahomet; for the first copies of the Koran were without them. The rabbins, he adds, stole them from the Arabs. Capellus, Walton, Simon, and others are of opinion, that all the vowels were expressed by the three letters \[ \vspace{1cm} \], \[ \vspace{1cm} \], \[ \vspace{1cm} \], called "matres lectionis." But it has been alleged, that these three letters have, in the Koran and in other punctuated copies, various vowel points annexed to them: whence it is inferred, that they are con-
and we find mention by Abulpharagius, Pococke, D'Herbaut, and Hottinger, of learned men, and books without number.

The revival of learning in the tenth century, by Gerbert, known after his elevation to the pontificate by the title of Silvester II. and afterwards among the Europeans in general, may be ascribed to the instructions and writings of the Arabian doctors and philosophers, and to the schools which they founded in several parts of Spain and Italy. And in the twelfth century, the inquisitive of different countries frequented the schools of the Saracens in Spain, and diffamated the knowledge which they obtained there, after their return. At this time, many of the learned products of the Arabians were translated into Latin, which facilitated the general progress of science.

Arabic or Arabian logic, was that of Aristotle, as explained by Avicenna and Averroes. As the Arabs applied themselves to this branch of science, they became proficient in the knowledge of words rather than things. Whence they have been sometimes denominated, "masters of the wisdom of words;" and sometimes the talking feet.

Arabic music, Arabicum marmor, a name given by the ancient Greeks to a species of marble brought from Egypt and Arabia, and remarkable for its beautiful whiteness.

Arabian music. In the Encyclopedic Methodique, we have a long article on this subject, chiefly taken from the Essay on Music, by M. la Borde. It, in a careful perusal of this article, we have been able to discover any essential qualities in this music that would improve our scale, intervals, melody, harmony, measures, or the tone of our voices or instruments, we should foolishly have studied and adopted them. But notwithstanding that the ancient Greeks praised and admired our music, by their own and the Persian poets, and the parade with which the Arabian scale and musical terms have been exhibited, we do not find ourselves much enlightened by the perusal. Indeed we are inclined to imagine that music in Europe has been cultivated with so much more success than that of any other quarter of the globe; our instruments, our harmony, and our melody, are arrived at such a superior state of perfection, that to abandon or neglect them for any refinements or properties which the music of Asia, Africa, or America could furnish, would indeed be letting our corn-fields lie fallow, and feeding on acorns; or throwing aside the poetry of Milton, Dryden, and Pope, to read and imitate only Chaucer, Gower, and Lidgate.

As national tunes, the airs of the Arabsians, Turks, and Perians, would amuse curious inquirers after exotics; but as to their theory, practice, and taste, faith in their excellence is wanting to make us imagine them worth the time and labour necessary to their acquisition. If, therefore, the article Arabic music has not been further extended, and should disappoint our readers by its brevity, the concessions made by M. Ginguè, who has compiled and digested the article in the new Encyclopedic, will a little abate their curiosity, and apologize for our want of time and zeal to investigate this music.

After giving us the scale and technica of the Arabian music in the language of the country, but expressed in letters of the French alphabet, M. G. says; "The Arabs, like other oriental people, never pass from one found to another, however distant, either in rising or falling, without running through all the intermediate intervals. These continual slides of the voice, which to us are insupportable, constitute, according to them, the charm of their music, and grace of their melody." Now the difficulty and effects of such sliding or mewing passages will be easily conceived by our readers, from what follows in the article of M. G. "From C to D they reckon four intervals; from D to E the same, and from E to F two." So that it is all done in quarter tones, or the enharmonic genus and scale. And where shall we find voices or instruments to furnish these intervals? "They have no knowledge of harmony (continues M. G.), and in their concerts, all the parts are performed in unisons and octaves, and all on slurred instruments; of which they sometimes sweep the whole number, to produce more or less effect, or at least more noise, which necessarily occasions a discordance, to which, from their ignorance of harmonic chords, their ears are insensible." Their instruments are chiefly those of percussion, or stringed, with the fingers or nails; they have, indeed, a flute, called Naïs, with vintages. It is the sound of this flute that the dervises dance. Two or three musicians are placed in a gallery that surrounds the mosque. The Naïs is flattened in the midst of the dervise; he gives the signal, the Naïs begins to found, and the dervises turn round with extreme rapidity. The Naïs gives another signal, the flutes then cease to found, and the dervises stop, and throw themselves into a particular attitude.

They have an instrument which resembles a lute, to which they affix more marvellous effects than the Greeks did to the lyre of Apollo. "They tell you, with the utmost gravity, that each of the strings of this instrument, four in number, has particular virtues: the first, for instance, acts as a specific against bile and phlegon; the second is a sovereign cure for the most invertebrate melancholy and vapours; the third gives health and vigour to young people of both sexes; and, lastly, the fourth string affords relief to the infant if he be heard, to a languid temper and distemper."

But the power of these strings depends much on the manner in which they are pinched or thumbed; which, like the power of the bow on the violin, is attained by long and laborious practice. "They have a particular pincicato, or pinch, for every action and passion; courage, liberality, and noble sentiments, by one mode of thumbling; love and pleasure by a second; the dance is inspired by a third; sleep and tranquillity by a fourth."

"At the distance which separates us from Arabia, and the difference in our ideas and sentiments (concludes M. G.), we can form no just conception of these fanciful effects, from which we might doubtlesse abate much of the marvellous. What they ascribe to each instrument, string, and stroke of the fingers, and delicate shades of perfection, only convinces us, that they are a people endowed with a sensibility very different from ours."

Arabic or Arabian oratory, according to Renaudot, confided in a luxuriant of quaint, high-flown words, epithets, and descriptions. That the ancient Arabs were eloquent in a high degree, and that they possessed wonderful powers of speaking, without preparation, in flowing and forcible periods, is evident from their whole history. Their eloquence was an harmonious and cadenced prose, adapted to their ears, and accommodated to the genius of their language, and to the cast of their character, but can never serve as a model for foreigners. Their orators, like their poets, were honoured and rewarded; and their orations were much the offspring of the imagination, without concatenation in the arguments, but confoling of different sentences following one another without connection, and remarkable for abrupt antitheses, and for sudden and unexpected transitions, rather dazzling than enlightening. See History of the Arabs.

Arabian or Arabian philosophy claims, according to some writers, and more particularly Ludwig, a very remote antiquity. On this subject the Greek writers are silent; but this, it is alleged, is a proof of their pride, and not of the barbarism of the Arabs. The Saracens themselves have confessed,
confessed, that before the rise of Mahometanism, their country was in a low state of civilization; and to this effect we have the testimony of Abulpharagius. Nevertheless, the advocates of the wisdom of the ancient Arabians have alleged, that from them, according to the relation of Porphyry, Pythagoras acquired a great part of his knowledge; that Moses fled out of Egypt into this country, and carried with him the wisdom of the Egyptians; that the queen of the calf, who visited Solomon, was of Saba, a region in Arabia; and that the wise men, who paid their homage to Jesus, were from this country. Besides, their origin leaves no doubt concerning the culture of their minds; for as they were descended from Abraham, it is pretended that they must have derived from their common father, not only a philosophic spirit, but a considerable portion of science. To all which is added the acknowledgment of Abulpharagius, that even before Mahomet, to which, in that country, is owing the revival of letters, they thoroughly understood their language, that they knew its value, and the several properties of it; and that they were good poets, excellent orators, and able astronomers. It is very possible, that the Arabians might have polished their language, that they might have held in examination, and the interpretation of dreams; that they were successful in the composition and solution of enigmas; that they had even some knowledge of the courses of the planets; and yet have no jut title to the character of philosophers: since all these arts, if they can modify the appellation, tend rather to nourish and foment superstitition, than to attenuate truth, and purge the soul from the tyranny of the passions. As to Pythagoras, nothing is more uncertain than his journey to the calf; and if it were more unquestionable, we can only infer from this circumstance, that he learned from the Arabians the art of divination, with which they, in common with other oriental nations, were well acquainted. If Moses went into Arabia, and settled there on marrying one of the daughters of Jethro, it could not be with the design of diffusing among the Arabians, or of gratifying their idle curiosity with philosophic systems. Providence permitted this retreat of Moses, for conveying thither the knowledge of the true God, and his religion. With respect to the remaining arguments, if they be allowed their utmost force, it will give the Arabians a very small share of the credit among the nations of the world, derived from the ancient philosophy of the eal: But it has been further said, that there was in Arabia, at a very remote period, a sect of philosophers called Zabians or Sabians. But the existence of this sect is doubtful. No mention is made of it by Greek or Roman writers. We owe all our information concerning them to the Arabians, from whom Maimonides, the Jew, borrowed his account. The probable truth concerning them is, that they were a mixed body of Gentiles and Jews, who, to give the fânction of antiquity to their institutions, pretended to derive them from Sabi, the son of Seth. Their system of opinions was an heterogeneous mass, which must have been the produce of a period much later than that to which we now refer. See Sabians. The Arabians, besides what has been already said of their science, in this article, and that of the History of the Arabians, it is, like the neighbouring Chaldeans and Persians, to have had their wise men, by whom their knowledge, such as they had, was taught, and their religious ceremonies and superstitions were practised. Pliny (H. N. Ixxx. c. 1.) mentions the Arabian magic, and speaks of Hippocrates, an Arabian, as belonging to their order. It can scarcely be supposed, that the Arabians were unacquainted with moral wisdom. The fables of Lokman, mentioned in a preceding article, translated from Arabic into Latin by Erpenius, afford no inelegant specimen of the moral doctrines of the Arabians; better adapted, however, to popular instruction than to the improvement of philosophy, which the Arabians do not appear to have cultivated, till the period when their government fell into the family of the Abbasides. Breyer's Hill. Phil. by Enfield, vol. i. p. 76. See the article Arabian learning. Sir William Jones (Aristatic Researches, vol. ii. p. 9.) says, that he finds no trace among them, till their emigration, of any philosophy but ethics: and even their system of morals, generous and enlarged as it seems to have been in the minds of a few illustrious chieftains, was, on the whole, miserably depraved for a century at least before Mahomet; the distinguishing virtue which they boasted of cultivating and practising, was a contempt of riches, and even of death.

Arabic, or Arabian, poetry, and physicians, succeeded the Grecian, and handed down the art to us, having made considerable improvements, chiefly in the pharmaceutical and chemical parts.

It is certain we owe to them most of our species and aromatics, as nutmegs, cloves, wace, and other matters of the produce of India. We may add, that most of the gentler purgatives were unknown to the Greeks, and first introduced by the Arabs; as manna, fenna, rhubarb, tamarinds, coffee, &c. They likewise brought sugar into use in physic, in which, before, only honey was used. They also found the art of preparing waters and oils, of divers simples, by distillation and sublimation.

The first notice of the small-pox, and the measles, is likewise owing to them. Lastly, the restoration of physic in Europe took its rise from their writings.

M. Le Clerc has given a sketch, and Dr. Friend an ample history of the Arabian physic. We have also a notitia of all the Arabian physicians by Fabricius.

Those who now practise the art of medicine in Arabia, know little more than the technical terms as they find them in the writings of Avicenna, and the ufe of simples. All the physicians in Yemen, Niebuhr says, acted at the same time as chemists, apothecaries, surgeons, and horse-doctors; and yet, by the practice of all these arts together, they could hardly earn a livelihood. A disease very common in Yemen, and ascribed to the ufe of putrid waters, is occasioned by the Guinea-worm; but it is not dangerous if the perfon that is attacked can extract the worm without breaking it. The leprosy seems to have been always an endemic disease in Arabia; and there is one species which authors differ widely in the character of Arabian. Three different variations of it are known; the first is the lepreux, of which two, named 'bokah,' and 'baras,' are rather disgusting than dangerous; but the third, called 'juddem,' is very malignant, and apparently infectious. The last prince of Arabia is said to have sent to the isle of Bahrein, with a body of the leprous, with or without complaints. At Bahrein, all lepers are shut up in a house by themselves; and in Bagdad there is a quarter surrounded with walls, and full of barracks, to which lepers are carried by force, if they retire not thereto voluntarily; but government does not provide with due care for the maintenance of these lepers. Incubation for the small-pox has been in use from time immemorial among the Bedouins: mothers perform this operation on their children, by opening the skin of the arm with the prickle of a thorn.

Arabic or Arabian poetry, may be divided into two ages. The ancient, according to Vitellus, was no other than rhyming stanzas, whether proper or improper; the rules of the verses loose and irregular, confined to no feet; number of syllables, or any thing else, so that they rhymed at the end; oftentimes all the verses in the poem ended with the same rhime. It is in such verse that the Alcoran is said to be written.

Poetry
Poetry was in fo great esteem among the ancient Arabs, that it was a great accomplishment, and a proof of ingenious extraction, to be able to express one's self in verse, with ease and elegance, on any extraordinary occurrence; and even in their common discourse, they made frequent applications of celebrated passages of their famous poets. In their poems they preferred the distinction of defects, the rights of tribes, the memory of great actions, and the propriety of their language; for which reasons an excellent poet reflected an honour on his tribe. So that as soon as any one began to be admired for performances of this kind in a tribe, the other tribes sent publicly to congratulate them on the occasion; and made entertainments at which the women assisted, drafted in their nuptial ornaments, singing to the sound of timbrels, the happiness of their tribe, who had now one to protect their honour, to preserve their genealogies, and the purity of their language, and to transmit their actions to posterity; for this was wholly performed by their poems, to which they were solely obliged for their knowledge and instruction, moral and economical, and to which they recurred, as to an oracle, in all doubts and differences. It is no wonder then, that a public congratulation was made on this account; an honour so distinguishing, that it was conferred only on one of these three occasions; namely, on the birth of a boy, the rite of a poet, and the fall of a foal of generous breed. To keep up an emulation among their poets, the tribes had once a year, a general assembly at Ocahd, a place famous on this account, and where they kept a weekly mart or fair, held on our Sunday. This annual meeting lasted a whole month, during which time they employed themselves, not only in trading, but in repeating their poetical compositions, contending and vying with each other for the prize; whence the place, it is said, took its name. The poets that were judged to excel, were bid up in their king's treasuries, as were the seven celebrated poems thence called "Al Moulikhat," or "Moulekkat," rather than from their being hung up in the Caaba, which honour they also had by public order, being written on Egyptian silk, and in letters of gold; for which reason they had also the name of "Al Modhalabat" or the golden verses. These poems, which have appeared in our own language, exhibit an exact picture of the virtues and vices of the Arabians, their wisdom and their folly; and shew what may be constantly expected from men of open hearts and tumultuous passions, with no law to control, and little religion to restrain them. The fair and assembly at Ocahd was suppressed by Mahomet; in whose time, and for four hundred years, poets seemed to have been in some degree neglected by the Arabs, who were then employed in their conquests. When these were completed, and peace was established, this study was revived; and almost all kinds of literature were encouraged and greatly improved by them. This interruption, however, occasioned the loss of most of their ancient pieces of poetry, which were then chiefly preserved by memory; the use of writing being rare among them, in their time of ignorance. Though the Arabs were so early acquainted with poetry, they did not at first write poems of a full length, but only expressed themselves in verse occasionally. Albert Schultens has preserved, in his Ancient Memorials of Arabia, two little poems, in an elegiac strain, which are laid to have been found about the middle of the seventh century, in some fragments of ruined edifices in Hadramaut, near Aden, and which are supposed to be of an indefinite, but very remote age. Sir W. Jones conjectures, that these were modern compositions on the inutility of human greats, and the confusions of religion; illustrated by the example of the Hamyaric princes; and to the same class of literary impurities belongs, as he suspects, the first poem quoted by Schultens, and ascribed by him to an Arab in the age of Solomon.

The modern Arabian poetry takes its date from the caliphate of Al Rafehid, who lived towards the close of the eighth century. Their poetry then became an art, and rules of profody were digested by Al Khalil Ahmed al Farahidhi, who lived in the reign of this caliph. The Arabians still cultivate poetry, and sometimes reward those who excel in it, though they have at present among them no great poets. The books are among the Bedouins of Desert. To this period it is mentioned by Nichubar, that a flock of that country was imprisoned at Sana, and that observing a bird upon the roof of a house, he recollected the opinion of those pious mujlimans, who think it a meritorious action to deliver a bird from a cage. He thought that he himself had seen a good right to liberty as any bird, and expressed this idea in a poem which he got by heart, and which becoming generally known, at length reached the monarch's ears, who was so pleased with it, that he fet the sheik at liberty, although he had been guilty of various acts of robbery. The exploits of their flocks are now frequently celebrated in the Arabian fons.

Arabic, or Arabian Religion was, in the state of ignorance, as they called the period before Mahomet, entirely Sabian; but the Sabian faith is not clearly and satisfactorily ascertained. See Sabians.

It is generally allowed, that they admitted the existence of one supreme God, the Creator and Lord of the universe, whom they designated "Allah Tealha," the most high God; and the religion of the noble and learned Arabs, as well as of the poets, was pure theism. We have Arabic verses of unsuspected antiquity, which contain pious and elevated sentiments with respect to the goodness, justice, and omnipotence of "Allah," or God. If an inscription, said to have been found on marble in Yemen, be authentic, the ancient inhabitants of that country preferred the religion of Eber, and professed a belief in miracles and a future state. It is certain, however, that the people of Yemen very soon degenerated, and fell into the error of adoring the sun and the firmament; for even the third in descent from Joktan, who was consequently as old as Nahor, took the surname of "Abdunas," or servants of the sun; and his family, we are assured, rendered particular honours to that luminary. Other tribesworshipped the planets and fixed stars; and by degrees a stupid idolatry prevailed among the lower orders of the people. The deity of the Arabs, or Sabians, chiefly confided in the worship of the fixed stars and planets, and the angels or intelligences which, as they supposed, resided in them, and governed the world under them. Those they honoured as inferior deities, and as mediators with God, imploded their intercession. To the worship of the heavenly bodies the Arabs were easily led, by observing the regularity of their motions, whence they thought them to be animated; and also that the changes of the weather happened at the rising or setting of some of them for a considerable period; and hence they offered to them a divine power, and conceived themselves indebted to them for their rains, which were highly beneficial to their parched country. This kind of worship was prescribed by Moses, and is frequently alluded to in the book of Job, particularly ch. xxxi. 26—28. Accordingly they had seven celeberated temples dedicated to the seven planets; and this planetary worship has been supposed by some Persons to have been the first species of idolatry. To this purpose Paulanens insinuates (Lacoeu. Oper. lib. iii.), that the worship of the planets was earlier than the first arrival of the Pelagis in Greece; and that before this time they had statues erected to their honour. Besides these stars, which were the general objects of worship throughout Arabia, there were some that were more peculiarly revered in particular provin-
Of the angels or intelligences which they worshipped, the Koran mentions three, namely, Allat, Al-Uzza, and Manah; these were called Goddeses, and the daughters of God; and thus appellation they bestowed not only on angels, but on their images, which they believed to be animated by the angels. All religious addresses, they conceived, were made as effectually before the one as before the other; and to this practice some have traced the origin of image-worship. Allat, or Allah, was the idol of the tribe of Thakif, who dwelt at Ta'ef, and had a temple consecrated to her in a place called Nubkhah. Al-Uzza was the idol of the tribes of Kurnash and Kenanah, and part of the tribe of Salam, as some say; but according to others, it was a tree called the Asaca, worshipped by the tribe of Ghatfan, and first consecrated by Dhulem, who built a chapel over it. Manah was the object of worship of the tribes of Hulaidh and Khazazah, possibly the Causanite of Potome, who dwelt between Mecca and Medina; and as some say, of the tribes of Awa, Knazra, and Thakif also. Dr. Pococke supposes, that the Manah of the Arabs was the Munt of the prophets. This idol was a large tree, described by Saadi in the ninth year of the Hegira, as a year fatal to the idols of Arabia; and its name is supposed to be derived from "Manah," to flow, from the effusion of the blood of the victims sacrificed to the deity and intelligence represented by it; others say it was the name of a convulsion. Besides these, the Arabian writers describe live antichristian idols, who are said to have been men of great piety and reputation, whose statues the Arabs at first revered with a civil honour only, which in process of time was heightened into religious worship. The Arabs had also a great number of other idols; and each country, and even each family, had its appropriate deity. There were, it is said, no less than 560 idols, equal to the number of days in their year, and in about the Caaba of Mecca.

Some of the pagan Arabs believed neither a creation pall, nor resurrection to come; but attributed the origin of things to nature, and their dissolution to age. Others allowed both. Some adopted the opinion of a metempsychosis, or transmigration of souls. The Arabs in general were strongly propounded in favour of auguries and fate; they perceived any beast or bird of ill omen, they were very close within their tents; and the months, holy occasions of buffets, or curiosity would, if possible, have determined them to set out on a journey under such unfavourable auspices. The priesthood among them gave no pre-eminence over the rest of the people; every family had its altar, its idol, and its sacrifice, who was not excused from bearing arms in defence of the common cause, nor from the other obligations imposed on their fellow-citizens. They were selected from among the aged; and it seems probable that the priesthood was a temporary dignity conferred on every minister employed in acts of religious worship; and when the service ended, these episcopal priests returned into the clafs of ordinary citizens; but whilst they were in office, it was expected that they should exhibit examples of moderation and sobriety. The Sabian priests referred to themselves no part of the sacrificed victim, which was the case with the pagan priests, but reduced it to ashes; abhorring the pre- sumption and sacrilege of setting down to the tables of the gods, and touching the viands that were offered to them. The ancient Arabs never imagined that tears and mourning could be grateful to the deity; and therefore they celebrated their religious festivals with dances and concerts, and the public jubilations was considered as the testimony of their gratitude towards a God who favoured his bounty upon them. It is true, however, that every tribe had its particular customs, and stamped its own character, jovial or gloomy, on its ceremonies of devotion. The Magian religion was introduced among some tribes of Arabia a long time before Mahomet, in consequence of the vicinity of the Persians, and their intercourse with the Arabs; and hence this impostor borrowed many of his institutions from it. Javaun also is said to have been introduced among the idolatrous Hanyrites by Abu Carb Afaal, who was the foreigner of Yemen about 700 years before Mahomet; and the Jews, who fled into Arabia in great numbers after the defection of their country by the Romans, made profelytes of several tribes, and particularly those of Kenanah, Al Harith Eda Caaba, and Kendah; and in time they became very powerful, and obtained possession of several towns and fortresses. At length Yufik, king of Yemen, raised a dreadful persecution against them, and put them to death by various tortures, one of which was throwing them into a glowing pit of fire, from which circumstance the Arabs gave him the opprobrious title of the "Lord of the pit." and Caleb, or Eleban, king of Ethiopia, to revenge the massacre of the Christians at Najran, put an end to Judaism and the kingdom of the Hanyrites in Yemen, this same time. The event happened in the reign of the emperor Justin. Chriftianity had likewise made a great progress in Arabia before the time of Mahomet. Whether St. Paul preached in any part of Arabia, properly so called, it is not easy to determine; but that the Christian religion was planted at a very early period in this country is an unquestionable fact. When the eastern church, soon after the beginning of the third century, was much harassed by discord and persecutions, great numbers of them sought shelter in Arabia; and as these were for the most part of the Jacobite communion, this fact generally prevailed among the Arabs. The principal tribes that embraced Chriftianity were Hamyar, Ghal- fan, Rabia, Taghliah, Bahara, Tomuh, part of the tribe of Tay and Koda, the inhabitants of Najran, and the Arabs of Hira. See Jacobites.

Such as we have above recited were the principal religions which obtained among the ancient Arabs; but as freedom of thought, says Bâle, was the natural consequence of the political liberty and independence of the Arabs, some of them fell into other opinions. The Korâh, in particular, were infected with Zendicism, an error supposed to have a near affinity with that of the Sadûdees among the Jews, and perhaps not much different from modern Deism; for several of that tribe, before the time of Mahomet, worshipped one God, and were free from idolatry; though they embraced none of the other religions of the country.

Since the establishment of Mahometanism in Arabia, there are several sects of this profecion in the country; such as the Sonnites, Scites, Zaidites, &c. of which an account will be given in the course of this work. In Arabia there are at this time many Jews, who are dispersed through different cities, having their synagogues, and enjoying a considerable degree of freedom. As they are fond of living together, they commonly form a village near every principal town. In the neighbourhood of Kheibar, there are some Jewish tribes, who are not barely tolerated, but possess the sovereign authority. Although the Chriftians were once numerous in Arabia, Niebuhr says, that he knows no Christian church remaining at present in that country. In the province of Lôh, they are called Saheans, or Chriftians of St. John; but the Chriftianity of this sect is a kind of confused medley of the opinions and ceremonies of several different religions. In the commercial cities there are many Banians from India: at Mocha, however, they undergo many mortifications; but at Mafcat, among the tolerant sect of the Beysi, they are permitted to observe the laws and cultivate the worship of their own religion, without disturbance. A considerable degree of religious toleration
is exercised among the Arabs. Their contempt, however, of those who differ from them is more chiefly manifested towards the Banians than the Jews, and least of all to the Christians; who, in return, express the least aversion for the Muslims. This progress towards general toleration among the Arabs is preferred from the rage of making profiteers. They seek neither to enter nor constrain any person, except sometimes their young slaves, whom they compel to embrace Mahometanism; but when a profiteer voluntarily enters himself, they are, by the laws of their religion, obliged to receive him, and to provide for his maintenance.

ARABIC Vesions. See Arabic Blesses.

ARABIC Year. See Arabic Chronology, and Year.

ARABICA, in Conchology, a species of CYPRAEA that is found in India. This shell is highly turbinated; characterized with irregular letter-like marks; and has a simple longitudinal streak down the back of it. Lin. Gen. Scl. Cyperea Arabica, or Arabic cowry, is about three inches in length; its ground colour is whitish or buff, and is covered with characters of a chefant or dark brown, that somewhat resemble Arabic letters upon the back; the edges are thick and spotted with purple. When the outer coat is worn off, the back of the shell is pale, with dark transverse bars. The inside of the mouth is violet; lips reddish-grey; cirrulations chiefest. It is called by Rumphius, Porcellana literata f. Arabica.

ARABICI, a feath that sprang up in Arabia, about the year 207, whose distinguishing trait was, that it was a more sweet with the former, and also rose again with it.

Eusebii, lib. 6. c. 38, relates that a council was called to stop the progress of this rising sect; and that Origen affixed at it; and convinced them so thoroughly of their error, that they abjured it.

ARABICUS effus. See Costus.


Clus. tetradynamia filiguetta. Nat. Ordes, filiguetta. Crucifers, Juss. Gen. char. Cal. perianthi, four-leaved, deciduous: leaves from parallel-converging; two opposite larger, ovate-oblong, acute, a little prominent at the base, gibbous, concave; the other two linear, erect. Cor. four-petalled cruciform, each ending in claws of the length of the calyx, Nectaries, four; each from a little scale within the bottom of the calyx leaflet, affixed to the receptacle, relic. permanent. Stam. Filaments fusiform, upright, two the length of the calyx, four twice as long; anthers cordate, erect. Pet. Germ. columnar, the length of the filaments. Style, none. Stigma obtuse, entire. Per. filique, comfressed, very long, linear membranaceous, with swelplings at the ends; valves almost the length of the partition. Seeds, many, roundish, compressed. Eff. gen. char. Nectaries glans four, one within each leaflet of the calyx, like a reflex scale. Species 1. A. Alpina, alpine wall-crefs; leaves clasping the stem, toothed; root perennial, creeping, from which proceed many leaves collected into heads, spreading circularly: they are whitish, oblong, and indented at the edges. From the centre of these arise the flowering stems, which grow nearly a foot high, with alternate leaves closely clasping the stem. The flowers are white, in bunches towards the top. Flor. Dan. t. 62. A native of the Alps and other mountains of Europe, on rocks, in caverns, and in woods. It was cultivated in the botanical garden at Oxford, in 1658, and is now common in gardens. 2. A. lucida, flowering wall-crefs, leaves embracing the stem, shining. Stem four inches high, simple, smooth, leaves opposite, those at the bottom ovate, obtuse; those on the stem alternate, cordate, clasping the stem. Petals red, white, linear, in corollas, which become racemose. A native of Hungary, perennial. 3. A. grandiflora, great flowered wall-crefs, stem naked; root-leaves many, two inches long, lanceolate, cut beyond the middle like pinnate leaves, with acuminate divisions. Corona terminating with alternate flowers, on very short peduncles. A native of Siberia, perennial. There is one variety of this species with entire leaves, and another with white flowers. 4. A. thibetana, common wall-crefs, leaves petiolate, lanceolate, perfectly entire. Curt. Lond. 2. 29. Eng. Bot. Root-leaves sometimes toothed near the base, filaments five, and toothed, hairy: stem upright, somewhat branched, round, crooked, hairy; the little branches alternate and drooping; petals white, entire, obtuse, twice the length of the calyx; stile half an inch long, containing several yeljow seeds. A common annual, growing in sandy grounds, and on old walls. 5. A. bellidifolia, daily-leaved wall-crefs, leaves subdenteat: those of the root obtuse, of the stem lanceolate. Jacq. Flor. Aug. 2. 1280. Root perennial, producing tufts of leaves, and several items, which are undivided, round, smooth, bending, lengthened out gradually at top, into a long raceme; flowers corymbed, inodorous, white, conflVerting of obtuse petals; filaments parallel to the stem, linear, compressed, opening at both ends. A native of the foot of the Alps in Switzerland and Austria: Introduced into the Royal garden of Kew, by John earl of Bute, in 1773. A smaller variety of this species is described and figured by Jacques; see c. 28, p. 115. 6. A. lutea, root-leaved wall-crefs, leaves smooth; those at the root lyrate, on the stem linear; root annual; the flower-flaws nearly a foot high, terminated by white flowers. Linnæus observes, that this differs in no respect from the fourth species, except that the root-leaves are lyrate and smooth, and the flowers larger. A native of North America. 7. A. hispidis, rough wall-crefs: this, according to Professor Martin, is the A. frieta of Hudson and Withering; leaves wedge-shaped, sublyrate, hispid; stem-leaves half embracing the stem, lanceolate; filaments hispid, anepical; root annual; items many, six inches high; root-leaves very many, toothed and gauze-toothed, rough, hairy; stem leaves three or four, toothed, hispid; flowers white, in racemes, on short peduncles; flowers an inch and a half long, quadrangular at the base, triated. It grows wild in most parts of Europe; and was found on St. Vincent's rocks near Bridiot, by Mr. Hudson, who describes it as a new species. 8. A. Halleri, Haller's wall-crefs, stem-leaves sublyrate, those on the branches lanceolate, gauze, hispid, five inches long, toothed on the edges, obtuse, repand, a tooth or two at the base; stem-leaves petiolate, oblong, finetoothed; petals white, with green claws. This plant sends off runners from the root and base of the stem. A native of Germany, Carniola, and Piedmont. 9. A. canadenfis, Canadian wall-crefs; stem-leaves lanceolate, toothed, smooth; flowers pendulous. A native of North America, two feet high, with broad, lanceolate, irregular, ferrate leaves; flowers in lateral racemes. 10. A. pendulosis, pendulous wall-crefs; leaves filmento-claspings; filaments anepical, linear, calyces sub-pilose; stem nearly a foot high, rough with scattered hair; leaves rough, partly embracing the stem, ferrate; peduncles long, filiform, loose; flowers white; filaments smooth, nothing. A native of Siberia. Cultivated by Miller, in 1759. 11. A. terricr, tower wall-crefs, Eng. Bot. Leaves filmento-claspings; filaments bending down, flat, linear; calyces frabridgade; root woody, biennial; stem usually simple; from one inch to two feet in height, upright, down, round; leaves hairy on both sides; root-leaves petiolate, oblong, thick, hispid, waved, and toothed; stem-leaves similar, filmento-claspings, toothed, regularly decreasing as they approach the top; flowers upright, white or yellowish, on short peduncles; filaments very
very long, linear, compressed, curved; seeds round, compressed: common on old walls, rocks, &c. 12. A. juncea, drill excrt, leaves linear, lanceolate, toothed; flowers the length of the stem; stem about six inches high, round, simple, have crowded, upright, hair at the base, deeply toothed, and as well as the whole plant covered with soft hairs; nodules of flowers terminal, nodding; petals white, lustrous, filiform, filaments in short, minute, flat, compressed, annual. Althorn and Villars differ considerably in their descriptions of this plant. A native of the south of Europe, on rocks. 1. A. fruticosa, root leaves roundish, rough, toothed; stem leaves, hairy. This, in many respects, agrees with the 9th species. Its stem is found in the United States from four to six inches high; simple, furnished with one or two opposite lanceolate leaves; flower large, white; calices white; stigmas broad, bowed at the end, upright, parallel to the stem. A native of the south of Europe. 14. A. lepida, all of the leaves entire; stem flexuose; densiform, bending, entangling one with another; leaves small, filiform, befit with forked hairs; petal small, white; stamens very thin, a little compressed. A native of Denmark. 15. A. erecta, stem straight, leaves longish lamellated, sessile; stigmas from erect spreading. This resembles the 14th species, except that its stems are constantly straight. It is annual or biennial, and found on walls or rocks about Granoble.

**Propagation and Culture.** All the above are hardy plants, and will thrive in any situation. They may be easily propagated by seeds, which they produce in great plenty. The first species is most common in our gardens, and by multiplying itself by its creeping roots, few persons are at the trouble of tending its seeds. It flowers early, and having many strong stems from one root, it makes a pretty variety in cold situations, where many finer plants will not thrive.

**ARABIS.** See Cardamine.

**ARABIS, or ARABIA, in Ancient Geography, a river of Persea, in the province of Gedrosia, which took its rise on a ridge of mountains that ran across the province, and after a short course, discharged itself into the Indian ocean. The mouth of the Arabis is placed by Mr. Rennell in E. long. 69° 34', and N. lat. 25° 26', about 44° Well from the western mouth of the Indus. Arrian mentions an island at the mouth of the river; and there is still a small town, called Sommene, at the entrance, and labouring under the same difficulty for water, which is noticed by Arrian; who says, that they were obliged to go up the country above two miles to find a well. From the Indus to the river Arabis, the Greeks, in the voyage of Nearchus, found the coast inhabited by an Indian tribe, whom they have named Arabes; and contiguous to them were the Orites, whose territory extended from the Arabis to Malana, or Cape Maran, which terminates a ridge of mountains sloping off from a chain which bounds this country on the north, from the Arabian capitol, now Hara, is placed by Mr. D'Anville on the Teneris; the country appear to have been fully peopled; and the Orites are described as dressed and armed like the Indian tribes; but their customs, manners, and language, says Dr. Vincent, "On the Voyage of Nearchus," mark them as a different race. The modern inhabitants confess chiefly of a predatory people, denominated "the Bellahs."

**ARABISM, ARABISIUS, an idiom, or manner of speaking peculiar to the Arabs, or the Arabic language. R. Martin maintains that it sometimes expresses an oath in the Hebrew as well as the Arabic.

**ARABISSUS, in Ancient Geography, a town of Asia, situate on a plain to the south of the river Medas.

**ARABIST, a person curious of, and skilled in the learning and language of the Arabian; such were Erasmus and Guilielmus. The system of the 13th century are called Arab. by Severinus. Freid, Hist. Phys. tom. ii. p. 301.

**ARABISTAN, in Geography, a name given by the Turks and Persians to modern Arabia.

**ARABIK, a town of Asia, in the province of Carmania, 105 miles south-east of Yruncup.

**ARABLE FARM, in Agriculture, that part of farm which is either wholly or in a great part under the plough.

**ARABLE Land, that kind of land which is proper for being ploughed or cultivated by means of the plough, with the view of producing grain or other crops. The dry and frangible sorts of soil are most adapted to this purpose. See Land.

**ARABS, in Entomology, a species of Tenebrion that inhabits the cast. It is black; thorax serrated; antennae and legs telocnemous brown. Fabricius, Gmelin.

**ARABS, a species of Ciemex found in South America. The thorax is spinous; body ovate, hvid; end of the abdomen bidentated. Linn. Feb. Gmel. This is called by Shane, Ciemex sylvestris vastus viridis triangularis.

**ARABS, in Ornithology, a species of Otis that inhabits Arabia Felix; and which Dr. Latham concludes must be the flying olear of Le Maure and Adamson; though Buffon supposes that bird to be the Limensis Otis area. Its specific character is very concise, 'ears with erect crest,' Gmelin. Brisson calls it L'Outarde d'Arabie; and Buffon, Le Lebon, ou L'Outarde buffle d'Arabie; and it is likewise the Arabesque Buffle of Edwards and Latham.

The size is that of the great buffle, but the bill, neck, and legs are longer in proportion. The bill is pale horn colour; the black of the head black and crested; forehead white, a black mark on each side of the head, piling into the crest behind; the rest of the head, neck, and upper parts of the body, rufous, mixed with black, and somewhat resembling the markings on the plumage of the woodcock; the throat, and fore-part of the neck, ash-colour crossed with brown lines; breast and belly white; quills black; secondaries black and white in spots, those near the body rufous, with dusky marks across; tail white except the middle feathers, which are blackish rufous; all of them are mottled and marked with a black band across; the legs are pale brown.

**ARABSCHAH, in Biography, a Mahometan writer of the fifteenth century, was a native of Damascene, where he died in the year 1450. He is the author of a history of Tamerlane, intitled, "The wonderful effects of the divine decrees in the affairs of Tamerlane," and of a theological treatise "On the unity of God." D'Herbelot Bibl. Orient.

**ARABUM LEPA. See Leprost.

**ARABUM sandaracha. See Sandaracha.

**ARAC, or ARAC, a spiritous liquor, imported from the East Indies; chiefly used by way of dram, in punch. The nature and composition of this celebrated liquor have been much controverted.—The name arac, Mr. Lockyer affirms us, is an Indian word for strong waters of all kinds; as they call our spirits and brandy, English arac. But what we understand by the name arac, is really no other than a spirit procured by distillation from a vegetable juice called toddy, which flows by incision out of the cocoa nut tree, and some other trees, like the birch-juice procured among us.

The toddy, Mr. Lockyer adds, is a plentiful drink of itself, when new, but purges those not used to it; and when stale, is heady; and finally makes good vinegar. The English at Madras used it as leaven to raise their bread with.

Others are of opinion, that the arac, or arcac, is a vinoous spirit.
spirit obtained by distillation, in the East Indies, from rice or sugar fermented with the juice of cocoa nuts.

The Goa arcade is made from the toddy, the Batavia arcade from rice and sugar. There is likewise a kind of shrub from which arcade is made.

Goa and Batavia are the chief places for arcade. At Goa there are divers kinds—ingle, double, and treble distilled. The double distilled, which is that commonly sent abroad, is but a weak spirit in comparison with Batavia arcade; yet, on account of its peculiar and agreeable flavour, it is preferred to all the other arcades of India. This is attributed to the earthen vessels which they use at Goa to draw the spirit; whereas at Batavia they use copper stills.

The Parier arcade, made at Madras, and the Cumber and Quilon arcade, at other places, being fiery hot spirits, are little valued by the Europeans, and therefore rarely imported: though highly prized among the natives. In the belf Goa arcade, the spirits of the cocoa juice do not make above a fifth or eighth part: the manner of making the Goa arcade is this: The juice of the trees is not procured in the way of tapping, as we do; but the operator provides himself with a parcel of earthen pots, with bells, and a number of earthen bird-bottles: he makes four a number of these to his girdle, and any way else that he commodiously can about him. Thus equipped, he climbs up the trunk of a cocoa-tree; and when he comes to the boughs, he takes out his knife, and cutting off one of the small knots or buttons, he applies the mouth of the bottle to the wound, fastening it to the bough with a bandage; in the same manner he cuts off other buttons, and falls on his pots, till the whole number is used: this is done in the evening, and defacing from the tree, he leaves them till the next morning; when he takes off the bottles, which are molefully filled, and empties the juice into the proper receptacle. This is repeated every night, till a sufficient quantity is procured, and the whole being then put together, is left to ferment, which it soon does.

When the fermentation is over, and the liquor or wath is become a little tart, it is put into a still, and a fire being made, the still is suffered to work as long as that which comes over has any considerable taste of spirit.

The liquor thus procured is the low wine of arcade, and this, to a liquor, that it will soon corrupt and spoil, if not distilled again, to separate some of its phlegm; they therefore immediately after pour back this low wine into the still, and rectify it to that very weak kind of proof spirit, in which state we find it. The arcade we meet with, notwithstanding its being of a proof left, according to the manner of judging by the crown of bubbles, holds but a fifth, and sometimes but an eighth part of alcohol, or pure spirit: whereas our other spirits, when they flew that proof, are generally esteemed to hold one half pure spirit. Shaw's Essays on Distilling.

There is a paper of observations on arcade, in the Melanges d'Histoire Nat., tom. v. p. 302. By fermenting, distilling, and rectifying the juice of the American maple, which has much the same taste as that of the cocoa, the author says he made arcade not in the least inferior to any that comes from the East Indies; and he thinks the juice of the sycamore and of the birch trees would equally answer the end.

Besides the common forts of Goa and Batavia arcade, there are two others less generally known; these are the bitter arcade, and the black arcade.

By that 11 Geo. I. c. 30, arcade on board a ship within the limits of any port of Great Britain, may be searched for and seized, together with the package; or if found unshipped or unshipped before entry, may be seized by the officers of excise, in like manner as by the officers of the customs. 33 Geo. II. c. 9, 9 Geo. III. c. 6.

Upon an excise officer's suspicion of the concealment of arcade, and oath made of the grounds of such suspicion, before the commissioners or a justice of the peace; they may empower him to enter into such suspected places, and seize the liquor, with the calves, &c. If the officers are obstructed, the penalty is 100l.

Arc is not to be sold but in warehouses, entered as directed in the 6th of Geo. I. c. 21. upon forfeiture, and the calves, &c. If permits are not returned, which are granted for the removal of arc, or if the goods are not sent away within the time limited, the penalty is triple the value. If the permits are not returned, and the decrease is not found to be sufficient, the like quantity is forfeited. Permits are not to be taken out but by direction in writing to the proprietor of the flock, or his known servant, upon forfeit of 50l., or three months' imprisonment.

By statute 9 Geo. II. c. 35. if arcade is offered to sale without a permit, or hawk, pedlar, &c. with a permit, the person to whom it is offered, may seize and carry it to the next warehouse belonging to the customs or excise, and bring the person offering the same before any justice of the peace, to be committed to prison, and procured for the penalties incurred by such offence. The person seizing such goods may prosecute in his own name; and on recovery is entitled to one-third part of the goods produce of the sale; and the commissioners are, if desired, upon a certificate from the justice of the offender's being committed to prison, to advance to the feizor 1£ s. per gallon for the arcade so seized.

Arc (except for the use of feamen, two gallons each) found in any ship or vessel arrived from foreign parts, at anchor, or hoisting within the limits of any port, or within two leagues of the shore, and not proceeding on her voyage (unless in case of unavoidable necessity and distress of weather, notice whereof must be given to the collector or chief officer of the port, upon the ship's arrival), is forfeited; with the boxes, calves, or other packaging, or the value thereof. 5 G. III. c. 43. 19 G. III. c. 69. 21 G. III. c. 89. 11 G. III. c. 35. 24 G. III. c. 47. Also, is also the name of a spirituous liquor made by the tasters of Tungisia, of mar's milk, allowed to become four, and afterwards distilled twice or thrice between two earthen pots closely stopped, whence the liquor runs through a small wooden pipe. It is said to be more intoxicating than brandy.

ARACAPU, in Botany. See Drosiera.

ARACAEI, ARACANS, or ARKITES, in Ancient Geography, a people supposed to be defended from Arak the son of Cannan, who inhabited a district in the vicinity of Sidon, which afterwards fell to the lot of the tribe of Abier, where Josephus places a town called Arce or Arca. From hence they removed farther north to a town of the same name between Aradus and Tripolis. The Arce mentioned by Josephus, and belonging to the tribe of Abier, was otherwise called Antipas. The Jewish historian says, that Baalnah, mentioned, 1 Kings. iv. 16, as superintendent of the tribe of Abier, was governor of the country round about the city of Arce, which lies upon the sea. In the latter times of the Jewish commonwealth, this city was a part of Agrippas's kingdom.

ARACAN, in Geography. See ARRACAN.

ARACANGA, in Ornithology, a species of Psittacus, or parrot, in the Linnean system; the Arracana of Mac-grave, the Arracanga Macaw of Willughby, Ara Jamac- craft of Brisson, Petit Ara Rouge of Buffon, Jamaica Macaw of Albinus and Brown, red and yellow Macaw of Bancroft and Latham. It is of a pale scarlet colour, with 4 F

naked
Arenaria

naked wrinkled cheeks; the scapular feathers are yellow, and tip with green; the wing quills are blue above, and red beneath. Mr. Latham suspects, that this may be a younger bird of the species called Arenaria, which is somewhat bigger. It inhabits Guiana, Brazil, and Jamaica.

ARACARI, a species of Ramphastos. It is green; abdominal band, vent, and rump red; belly yellow. Gmel. &c. Ramphastos with a black beak, the upper mandible white on the sides, and three-toed at the base. Linnaeus. Sw. Nat. Mascarene calls this bird Aracari; Brisson, Tucana Brachyopa Viridis; and Buffon, Grigi, and Tucan Verdu del Brazil.

The length of this bird is sixteen inches, of which the bill measures four inches and a quarter; it is hooked at the tip; the upper mandible white, marked above with a black stripe the whole length; the lower mandible is wholly black, and deeply serrated at the edges. The head, throat, and neck black; on each side of the head is a small chief spot just above the ears; the upper part of the back, scapulars, and wing-coverts are dull green; lower part of the back, rump, and upper tail-coverts, bright red. Breast, belly, and sides bristline, with a bright red band across the belly. Tail wedge-shaped; legs blackish green; claws black. Inhabits South America.

ARACCA, in Ancient Geography, a town of A sia, in Sufiana, on the eastern branch of the Tigris, according to Ptolemy. This is probably the city of Chaldæa, built by Nimrod the grandson of Cush, and mentioned under the name of Erach, Gen. x. 10. Ammius calls it Areca; hence originates the name of Arechian plains, described by Tibullus (l. iv. p. 405. ed. varior.):

"Ardet Arectes aut unda per hospita campus."

And this city might probably have led the Arabsians to call the large province of A sia, Iraq or Irak, the capital of which was formerly Babylon, and now Bagdad.

ARACENA, in Geography, a town of Spain, in the province of Andalufa, situated near the Sierra Morena, in the country of Seville, with a castle on an eminence; 10 leagues N. N. W. from Seville.

ARAC-CELERAN, a small district of Chufflan, a province of Perù.

ARACH, or Erach, a name now given to the ancient Partia.

ARACH, in Botany. See Atriplex.

ARACHIDNA, and Arachnidoides. See Arachis, Glycine, and Lathyris.

ARACHIS (from ἄραχνα, damnum, vel nocca), in Botany, earth-nut. Lin. gen. 576. Schreb. 1177. Linn. t. 144. Juss. 351. Arachis, Plum. 37. Arachidnoides, Niff. act. gall. 1723. t. 10. Clf. diadhelica decandrea. Nat. Order, Papilionaceae or leguminosae. Gen. Char. Cal, perianth two-parted, gaping; upper lip ovate, emarginate; the intermediate division the largest, emarginate; under lip lancolate, concave, acute; longer than the upper. Cor. papilionaceous, reflexed; banner roundish, flat-delicate, very large, emarginate, longer than the calyx; wings free, subovate, shorter than the banner; keel subulate, incurred, the length of the calyx, very slightly bident at the base. Stam. filaments ten, all united at bottom, subulate; anthers alternately roundish and oblong. Pfyl. germ oblong; style reflexed, the length of the germ; stigma simple. Per. a legume, ovate-oblong, columnar, valves crisps, gibbous, one-celled. Sepals two, oblong, obtuse, gibbous, truncate. Olf. Most of the flowers have a pilifer without a germ.


Species, 1. A. hypogea, common earth or ground nut.
which is 


debis, it therefore forms a subdivision of the genus in the Linnean system, and is thus defined; circular mouth central; vent square, and placed on the surface: 

Arachniodes Kleinini.

Arachniodes is also a species of Maderpora found fossil. The stars are very small, crowded, and flattened; rays somewhat undulated, short, and equal. Gmel. &c.

ARACHNOIDEUS, in Botany, denotes cobwebbed.

ARACHOSIA, in Ancient Geography, a province of Persia, situated between Drangia, on the north, and by Paropamisus, on the east by the river Indus, and on the south by Gedea. It was anciently inhabited by the Ari


maphri. Ptolemy enumerates thirteen cities in this province; the principal of which were Arachosia, Alexandria, and Arbacia. The ancient Arachosia is traced by major Ren
dell in the present ARACHNE. Captain Wilford says (see Asiatic Researches, vol. vi. p. 517.) that Rob. Coel, according to the Bollachi pronunciation, denoting the mountains of Coel. or Rou-Coo as softened by the Pattans, is the Ara

chosia of the Greeks; and that it includes the districts of Gazni and Candahar. Arachosia is now called Cawer or Cawaran; but even this appellation is becoming obsolete. By a strange mistake, says this ingenious writer, the country of Arachosia, and the river which flows through it, have been placed by the learned D'Anville to the south of Candahar. He adds, that if this famous geographer had recognized Gazni in the Shakeni-Couze of Tavernier, this mistake would not have happened. Mr. Wilford having conversed often with natives of Candahar, of Kála-at-Núr-Khán, and Coughor, as well as other intermediate places, obtained sufficient local knowledge of that country to rectify this error.

ARACHOTUS, an ancient people of India, supposled by Bryant (Anal. of Anc. Mythol. v. 111. p. 199.) to be the same with the Catha"ans, and fo denominated from their city Ar-Chota, the same as Cothopolis, or city of Cutha. The Arachotians were styled Arachnites from their particular habit which was of linen; and were a branch of the Amo

rians, who, wherever they settled, were famous for this manu

facture.

ARACHOTUS, a town of Asia in Arachosia, built on a lake of the same name by the famous Semiramis, who is said to have given it the name of Cophes. This city, says captain Wilford, (ubi supra), was probably Cog-vara or Chijhar, Coggvar, and Chijhar, the Kodzor and Kozdor of Perian authors; and literally the habitation of Cog, and by implication, the capital city of Cog. The river Arachosia, called also Chooass and Cophes, is now called Abul-Tarnic, or the river Tarnic. It rises in the hills north-east of Gazni, and after having watered the whole valley of Arachosia, loses itself in a marsh about four miles to the south of Candahar, which marsh was the Arachosian marsh of the ancient geographers. The present river Arachotus is formed by a small stream, which rises a little above Mucur in this marsh, and hence it is often called the water of Mucur.

ARACHOTUS, a town of Zola, according to Ptolemy Arachthus, a river of Epirus, which ran into the gulf of Ambracia.

ARACHUS, in Botany. See ERYUM.

ARACIA, in Ancient Geography, an island of the Persian gulf, situated on the Persian fide, and placed by Nearchus between the isle of Caucæsopes and the mountain Ochos. ARACIANA, a town of Partha, mentioned by Ptolemy, ARACILLUM, an ancient town of Spain, taken and destroyed by Augustus.

ARACINTHUS, in Entomology, a species of Papilio (Hef. Urb. Linn.). The wings are rounded, entire, and brown; polierrier pair beneath grey, with white eye-shaped spots. Fabr. Sp. Inf. This butterfly inhabits France, Germany, and Siberia; it is Papilio morpheus of Pallis, and Papilio hypergus of Eger.

ARACLEAN, in Geography, a sea-port town of European Turkey, in Romiuni, on the north-west coast of the ten of Marmora, called by the Turks Ercelti, 15 leagues west of Constantinople.

ARACNEUS, in Ancient Geography, a mountain of the Arcadia, part of a chain which separated the peninsulas of Morea on the south-call. It lay to the north-west of Epidaurus.

ARACOUIA, or ARAGHOTA, in Geography, a borough of Greece in Laceda, near the Gulf of Lepanto; supposed to be the ancient Ambelis.

ARACUITES, a people of South America in Brazil, in the vicinity of the prefecture of Pernambuco.

ARACUS, in Botany. See ORDUS.

ARACUS Aromaticus, in the Materia Medica, a name given by some authors to the Vanilla used in making chocolate.

ARACYNTHUS, in Ancient Geography, a mountain of Greece in Boeotia, whence, according to Steph. Byz. Mireva was denominated Aracynthus. Strabo places this mountain in Zola, and Pliny in Carmania.

ARAD, ARADUS, a town in an island of the same name on the coast of Phocis, over against Antarados. Strabo says that this town was built by the exiles of Sidon: and Josephus informs us, that it had at first its own kings, in common with the other cities of Phocis; but, in progress of time, it was subdued by the Tyrians. After the Persians took possession of Phocis, the kings of Aradus were tributary to Persia. After the fall of Strato, the son of Gerostratos, obtained of Alexander the Great, for himself and his father, the established possession of this kingdom. It afterwards, as a part of Phocis little privilege: but they were deprived of it by Antiochus Epiphanes, who, on his return from Egypt, took their city, and ravaged the whole province. When Pompey made a conquest of Syria and Phocis, the Ara

dians became subject to the dominion of the Romans. The city of Arad, though it had no harbour in the island, became powerful at sea by means of a port which it had on the continent at the mouth of the river Eleutherus. Its inhabitants detested piracy, and separated from the Cilicians, who were addicted to it. Strabo, i. xvi. The island Aradus, the Arard of the Scriptures, and the feast of the A-sardite or Aradite (see Gen. xi. 15.), is at present called Rou Waddi; and this island, and also El-Hammah, the ancient Hamath, the feast of the Hamathite, lying over against it (Exk. xlvii. 26.), ten leagues to the eastward, are the most northern settlements of the sons of Caanan. The prospect of Rou-waddi from the continent is very magnificent, and furnishes at a distance a continued train of fine buildings and impregnable fortifications. But this is altogether owing to the height of its situation, and the rocks that abound in it. Its whole strength and beauty, though it was called Rou


wadde, or Arpad, probably from the Hebrew ר"ש, firmus fuit, consists of a weak fortification wall, defended by a few small cannon. Formerly, however, it was surrounded by a strong wall, constructed with stones of an immense size adapted to each other without cramps and mortar, so as to withstand the violence of the sea, and the battering engines of an enemy. In the time of its prosperity, art and nature had conpired to render it a place of such strength and im-

portance,
A R A

A R A

portancc, as fufTieiciuIy to juftify the boafl, " Where is the
of Aip.id :" (TI Kings, xix. i ,'.) which Scunaclicrib

kiii^'

niadi-

nor

the coiuiucll of

til

ha

Thisilhind

it.

memory of

tradition retained the

is

now

dtfi-rtcd,

a fprinj^ of frdh

water in its vicinitVi whicli the people of Aradob arc faid
to have dilcovercd at the bottom of the fea ; and from
which lliey drew water in time of war, by means of a leaden
bell and a leathern pipe fixed to its bottom.

Arad,

of Paleltinc, fitnalc in Araand of the huid of
Canaan. 'I'he Ifraelites, in tlieir proijrefs towards C;iaaan,
were oppofed and defeated by ttie king of Arad ; but as
foon as thev became mailers of Canaan, they deilroyed all
its cities. Nnmb, xxi. i. ch. xxxiii.
Arad was afterwards
rebuilt ; for Eufcbius places it in the neifjhbourhood of
Kades, four miles dillant from Malethis, and twenty from
or

a

.iriir!(i,

city

bia Petrxa, foiith of the tribe of Judali,

See Ared.
Arad, in Geo^mphy, a town of I'pper Hun-ijary on the
river Marifch, twenty-four miles north of Tcniefwar.
in Ornithology Ti mme given by Buffon to
the Gniclinian Turdus canlaiu ; which fee.
ARADI, in Geography, a town of Afiatic Turkey in the
province of Natolia, fixteen miles north-well of Kallamemi.

Hebron.

ARADA,

,

ARADIS,

in ylnclent Geography, the name of a town iii
the ifland of Sardinia, which, according to Dion, w^as
taken by Menas.
an epifcopal city of Africa, in the proconfular province.
R ADOS, in Medicine, fignifics, according to Hippocrates, that perturbation which is excited in the Itomach by
concodling meats of difTcrent qualities.
It^ alfo llgnifies

ARADITA,

A

any internal perturbation, occafioncd by purging medicines,
vehement exircife, or other caufes.
\n ylncient Geography, a town of Media according to Ptolemy.
a town of Hifpania Tarragonenfis.

ARADRIPHE,

ARADUCA,
ARADUCTA,

a town

of Lufitania,

according

to

The

araometcr, or water-poife,

confilliug of a round IiliUovv ball,

neck, hermetically fealcd ul top

flcnder
as

much running mercury put

—

AR/EOMETER,

;

into

it

as

;

being

there
will

glafs

|

in a lonpf

ferve

firft

to ba-

it fwiinming in an ereft polition.
ftem is divided into degrees (as reprefcnted P lata
IX. Pneumatics, Jig. 70.); and by the depth of its dclceiit
into any liquor, the lightnefs of that liquor is concluded;
lor that Hnid in which it links Icalt mull be heaviell ; and

The

which

that in

H

M.

lowell, iiglitell.

liiika

it

niiberg has invented a

ntw

ara;omcltr, defcribed

J

in

Phdof. Tranfad. N-" 262. thus:
(Jig. 71.) is a glals bottle or mattrafs, with fo lleiidcr a necK, that a droj) of water
takes up ill it about five or fix lines, or half of an inch.
Near that neck is a Ima.l capillary tube D, about fix inches
long, and pitrallel to the neck.
To fill the velfti, the liquor is poured in at the niuutli B (wliieh is widened to receive a tunnel), till it run out at
rife in the
; that is, till it
neck to the mark C, by which means you have always the
fame quantity of liquor ; and coiifeqnentlv by means of the

—

D

balance, can eafily

weighs moll, or

tell,

when

dilferent liquors

till

it,

which

moll intenfely heavy.
Some regard, however, is to be had in thefe trials to
the Itafon of the year, and the degree of heat and cold
in the weather; becaufe fome liquors rarefy with heat, and
condenfe with cold, more tlian others ; and accordingly
take up more or lefs roo"!.
By means of tliis inllrument, the ingenious author has
made a table to fhew the difierent weights of the fame bulk
of the moll conliderable chemical liquors, both in fummer

and winter,

is

as follows

:

Weighed

The arxometer

full

of

in

fummer.

In winter-

OS. e/r gr,

oz. dr. gr-

00 c6

-

II

Oil of tartar.

01 03 08

-

Spirit of urine,

01
01
01
01
oi

01 oj 31
or 00 43
01 04 03
CI 01 70

Q^uickfilver,

Oil of

1 1

vitriol.

ARADUS.

See Arad.
ARADus,aii iHand of the Red Sea, mentioned by Steph.
Byz. Alio, the name of an ifland in the Perfian gulf, mentioned by Euftathius, and alfo by Strabo.
ARiE. Athenasus mentions three iflands of this name
on the coaft of Ionia. There arc feveral places under this
denomination, derived from the altars that were erefted in
them, on various occafions and for different purpofes.
Ar.e Phileenorum. See Phil.^ni.
ARiEGEN-US, a town of ancient Gaul, fiippofed by
M. D'Anville to have been Bayeaux ; formed of BajocafTos,
wtiofe capital was this city.
formed of ccfatoi, thin, and psTpov,
rinj/ure, an iiiflrument wherewith to mcafure the denlity or
gravity of fluids.
The invention of the areometer has been commonly
afcribed to Hypalia, the daughter of Tneo, about the md
of the fourth century
hut: this account, fays Salverte
(Annales de Chemie, xxvii. 13.), is not accurate, if the
poem, " de pondtiibus et menfuris," annexed to the works
of Prifcian, and written by Rhcmnius Fanrius Palxmon, be
tiu'y afcribed to him.
Rhemnius has given a perfpicuovs
and exadl drfcription of aracomctry ; and he lived under
Tiberius, Caligula, and Claudius Casfar, t^ree centuries before Hypatia ; and he attribtites the invention to Archimedes.
However, if it be confidered that valuable inventions are forgotten and difcovered again durin<^ the lapfe of
a (horter period than three centuries, Hypatia may be
allowed the honour of a fecoad invention.

made of

lance or keep

CO

.]a

-

58
40
3;

-

.38

-

55

-

CO 06 47
CO 07 5,3
00 07 50

-

03
or
00
01
CO C7

Spirit of nitre,

Ptolemy.

ufually

is

which terminates

fait,

Aquafortis,
Vinegar,
Spirit of wine,
River water,
DilULlcd water.

The

-

.

ARjEOSTYLE,
teSure, a fort of

were

00 47

01 01 55
00 07 60

CO 06 61
CO 07 57
00 07 54

-

-

inllrument itfelf weit;hed, when empty,
twenty-eiyht grains
See Myprometer.

ARyl:OPAGU,^.

CO 32

one

dram

S.e Areopagus.
As-tosTyLos, in

intercidumni^tion,

pl-^ced at the diflance

\.\\e Jncient Jrchiwherein the columns

of eight, or, as fome fay, ten mo-

dules from one another.

In the arajoftyle, the columns were the widelland opened
they were ev^r planted at
whence the name from the
Greek (Z53(ioc. rarus, and cttuXo,-, column.
The arasottyle is c' iefly ufed in the Tufcan order, at the
gates of great cities and fortrelTes.
ARy£OTICS, in Medicine, fuch remedies as tend to
open the pores of the ficin, and render them large enough
for the morbific matter's bting carried off by fweat, or iti-

—

;

fenfible perfpirati.">n.

To

the clafs of arBoties belong diaphoretics, fudorifics,

&c.

ARjETHUS,
in

in Ar:cient

Geography, the name ofa river

Epirns.

ARAF,

or

Al-Araf,

in the

Mahometan Theology. See

Al-Araf.

ARAFA

See Corban.
3

ARAFAT,


ARA

ARAFAH, in Geography, a mountain of Arabia, near Mecca, so called, as some say, because Adam there met and knew his wife, after a separation of 200 years; or, according to others, because, after he had instructed Abraham in all the sacred ceremonies, coming to Arafa'h, there asked him if he knew the ceremonies which had been shown him; to which Abraham replying in the affirmative, the mountain thence had its name, and was called "the mountain of knowledge." To this mountain the Mahometan pilgrims proceed in a tumultuous manner on the ninth day of the month Dhulhajja, after morning prayer; and here they continue performing their devotions till after sun set. When their devotion is finisht on this mountain, they depart to Mozdalifah, an oratory between Arafa'h and Mina, and there spend the night in prayer and reading the Koran.

ARAGON. See ARAON.

ARAGUAY, a town of Arabia, 100 miles E. S. E. of Saba.

ARAGUA, a town of South America, in the country of Tera Firma, and province of Camana.

ARAGUAY, 1747, in Ethnology, a name given by Markgrave to a species of Malva, once called by Linnaeus Squa- lus Pratis, which see.

ARAGUS, in Ancient Geography, a river of Asiatle Iberia, which, according to Statho, joins the Cyrus; but Ptolemy calls it Alazon, and says that it descends from Mount Caucausus, separates Iberia from Albania, and discharges itself into the Cyrus.

ARAHUM, or HAPAUM, in Ancient Writers, denotes a place consecrated or set apart for holy purposes. Du.

cange.

Hence the phrase, in ababo jurare, or conjure, to make oath in the church; because by the Riparian laws, all oaths were to be taken in the church on the relics of the saints.

ARAIL, Francino, in Biography. See FRANCINO.

ARAINIIE, in Fortification, sometimes denotes a branch, return, or gallery of a mine.

ARAIIE, the name of a small plough used in Provence and Languedoc, in France.

ARAL, in Geography, the name of a lake or sea of Great Britain. In Scotland Tartary, about 100 miles to the east of the Caspian Sea. It is about 200 miles long, and about 50 broad; and receives the river annterior called xias-

arteas, and more recently the Sir or Sihon, and the Oxus of antiquity, now called the Gihon. It is very probable that the Caspian Sea and the Aral formerly constituted one lake, though they are now separated by an elevated place, occasioned, perhaps, by the sand rolled down by the Gihon, the Sirr, and other rivers which now flow into the sea of Aral.

The waters of this lake are saline, like those of the Caspian, and the fish found in both are of the same species. N. lat. 42° 45' to 46° 40'. E. long. 57° 4' to 61° 14'.


Species. 1. A. spinosa; thorny aralia, or angelica-tree; angelica arborescens, &c. Comm. hort. t. 47. christopho-

riana, &c. Pluk. phytt. t. 20. Sp. char. arboreescnt. Stem and leaves prickly. This rises with a woody stem to the height of eight or ten feet, dividing into several branches, with branching leaves, composed of many divaricating wings. The ribs of the leaves, as also the branches and stem, are armed with strong hooked spines, rendering the place where the plants grow in plenty, very difficult to pass through.

The flowers are produced in large loose umbels, at the extremities of the branches, and are of an hermaphrodite character.

The berry is three-cornered and three-celled. A native of Virginia, whence it was sent to England in 1668, and cultivated by bishop Compton at Fulham. 2. A. penophylla; five-leaved aralia; arboreous, prickly; leaves pinnate. The branches of this tree are prickly, round, flexuose, ash-coloured; prickles axillary, solitary, horizontal; leaves petiolated, from one bud, to three, four, or more; leaflets ovate-acute, serrate at top, smooth; flowers in umbels, which are peduncled; flowers longer than the corolla. A native of Japan. 3. A. chinensis; Chinese aralia; frutes species, aquo-

uosus mas. Rumph. amb. 4. t. 8. Nalgu, Rheed. mal. 928. fruticos, petiolate prickly; leaflets unarمعed; villose; stem fimbriate, closely befed with prickles; leaves confined to the top of the plant, on three-parted prickly villose pedicels; partial leaves pinnate; leaflets ovate-ferrale, villose, large; panicle branching, with numerous umbelules. It was found in China by Olbeck, also in Cochin-China by Lourierio. It is a native of Malabar, and of Amboina; but Rumphius speaks of it as a large tree growing in the woods; whereas Lourierio describes it in Cochin-China as procumbent or scendant. See his Fl. Cochin. 157. 4. A. japonica; Japanes aralia; Kempt. ilc. Sel. 18.; fruticos, leaves lobate; stem unarmed, upright, six feet high; leaves towards the top close, alternate, petiolated, seven lobed, young leaves five lobed; bractes many, involving the whole panicle of flowers, which are terminal in compound panicles, with alternate umbelled peduncles; umbels fimbriate; no involucle. A native of Japan. 5. A. racemosa; bery-

bearing aralia; stem leafy, hermaphrodite, smooth. This grows three or four feet high, dividing into many irregular branches; leaves ramose, alternate; peduncles axillary, terminal, round umbels of small four-leaved flowers, of a whitish colour, succeeded by round channeled berries. A native of Canada, where the berries are eaten, and the leaves and roots used as fallalds and pot-herbs, by the Indians and French. 6. A. nudifolius; naked-rachis aralia; stem naked; leaves in pairs, ternate; stem so very short, as to scarcely delvery the name: leaves decomposed; leaflets pinnate, with five ferrate pinnae; scape long, supporting about three umbelules, in shape and colour like those of the preceding species. This, and also the fifth fort, were cultivated by Miller in 1731. It is a native of Canada and Virginia. See Pluk. als. 98. t. 238. f. 5. The roots of this plant have been sold for those of farfaparilla, and are still used for the same by some of the inhabitants of Canada, though very different from the true farfaparilla. 7. A. cordifolia; heart-leav-

ed aralia; hermaphrodite; stem angular, unarmed; leaves fimbriate, heart-shaped; stem fuscute, white, yellow, branching but little; leaves alternate; petiolated, ovate-acute, toothed, rough on both edges; pale and ribbed beneath; umbelules; flowers axillary, umbelled; peduncles trichotomous. A native of Japan. 8. A. 00phylla; digitate-

leafed aralia; stem arborescent, unarmed; leaves digitate, with eight leaflets; panicle umbelled. A tree, ten feet high; leaves on long footstalks; leaflets oblong, obtuse, entire, smooth, unequal, dilated in a ring; flowers yellow, sprinkled with red, in a vall terminating panicle, ending in umbels; no involucle; calyx truncate; petals oblong spreading.
spreading. It is a native of Cochin-China, where it is also cultivated, and used as a medicine in droppers. Near Canton there is a species or variety of aralia with two filaments, and a ten centimetre.  

$A$ pflumila; pflumilate-leaved aralia; stem slender, prickly; leaves a-fiovehead; umbel single, lateral; stems slender; leaves large, scattered, on long fouldits; flower white, without an involucre; petals and peduncles unarmed; prickles on the stem, fouded, bowell back. A native of China. The bark of this is also used in droppers, and in cutaneous disorders. Positively known of the above species, may, on more accurate examination, be found to belong more properly to the genus Herberi, which item nearly all ad to the vrat.

Propagation and Culture. The frist is propagated by seeds, which are easily procured from North America, and which should be sown in pots filled with light earth, and placed in a shady situation till autumn, when the pots should either be plunged into an old bed of soil, or planted in a warm border, sheltered by a hedge or wall; and if the winter prove severe, it will be proper to cover the pots with straw or peat-haulm, to prevent the fruit from penetrating deep into the ground. In March the pots should be plunged into a temperate hot-bed, which will bring up the plants early, so that they will have more time to get through the following winter. The pots should be constantly kept clean from weeds, and when the plants come up, they ought to be frequently refreshed with water; in May they should be inured to the open air; and when they are removed out of the bed they ought to have a shady situation. In mild weather, these plants should be always exposed to the open air; but great care must be taken to guard them against frosts; therefore the frames under which they ought again to be placed in October, are to be constantly opened when the weather is not severe. In the spring, before the plants begin to push, they should be carefully shaken out of the pots and separated; part of them should be planted singly in small pots, and the other may be planted in a bed of light earth, in a warm situation. If these which are planted in small pots, be placed in a moderate hot-bed, it will greatly forward their growth; but they must be early inured to bear the open air, otherwise they will draw up weak. In the following summer, they must have a shady situation, and next winter sheltered again; the spring following they may be shaken out of the pots, and planted where they are designed to remain. Those plants which were planted in the beds will require protection from the frost the first winter; but if the surface of the ground be covered with old tawny bark, it will prevent the frost from penetrating to the roots; and in hard frosts some straw, peat-haulm, or any light covering, will secure the stems from being injured; and after they have remained in the beds two years, they will be strong enough to be transplanted in the places where they are intended to grow. This plant may be also propagated by its roots. The fifth and sixth species are hardly enough to be propagated with very little trouble. Their seeds should be sown in autumn. See Miller's Dict. by Martyn.

Aralia arborea & capitata. See Hedera.

Aralia in Ancient Law Writers, denotes arable, or ploughing lands.

This is otherwise denominated aratoria, araturia.

In Domesticy for Essex, we meet with deem cures prurit, deo runcid. quatuor aralia—Where aralia seems to denote land fit for ploughing and tillage, by way of contradiinction to runcida, which was over-run with brissors and thorns. Du-Cange.

ARALIASTRUM, in Botany. See Panax.

ARALUCUS, in Ancient Geography, a place of Gallia

Narbonensis, north—north—east of U. rum Juli. Venus hid in this place a temple, which was destroyed in the year 447.

ARAM, a name given in literature to Syria, from Aram the fifth son of Shem, by whose descendants, called Arameans, Syria was peopled.

ARAM, a town of Judah, in the Staffle of Manesich, on the other side of Jordan.

ARAM, in Geography, a town of Arabia, 58 miles N. E. of Chamor.

ARAM Bde-Rohol, that part of Syria which lies N. of Palmyre, and was the territory of the city of Rohob, belonging to the tribe of Abar. See Damauscus, or Syria Damausea, a principal and most powerful part of Syria, of which Damascus is the capital.

ARAM-Machesa, a district of Syria at the foot of mount Hermon, on the border of the half tribe of Manesich, on the other side of Jordan, called the coast of Maacsa.

ARAMrodara, or Syria of the rivers, or Marchopotamia, situate between the Emporium and Tigris, whence the name.

ARAM-Ziba, a country of Syria, near the Emperthres, conquered by David, and afterwards the site of Panamra; bounded in the E. by the Emperthres, and on the W. by the land of Canaan and Syria Damascena.

ARAMACA, in Littymology, a name given by some naturalists to the species of Paeonectes, called by Linneus manius. Vide Ruficz, theat. anim. Maregrafe.

ARAMAGARA, in Ancient Geography, a town of India, on this side of the Ganges, according to Ptolomy.

ARAMASCEVA, in Geography, a town of Siberia, 30 leagues S. of Tobolk.

ARAMATHA, in Ancient Geography, a metropolitan city of the Armenians, according to Josephus.

ARAMAVA, the name of a town of Arabia Felix, according to Ptolomy.

ARAMBY, the name of the five factories established by Hamon, the Carthagman admiral, on the western coast of Africa, between the river Lixus and the promontory of Soleic.

ARAMEL, ARAMEANS, a name given by the Jewish lawgiver Moses, to the inhabitants of Syria and Mesopotamia. See Zera. Phiny places a people of this appellation among the Scythians.

ARAMITUS, in Geography, a town of France, in the department of the Lower Pyrenees, and chief place of a canton in the district of Oleron, on the Vert, seven miles S. W. of Oleron. The place contains 1,050 and the canton 5,883 inhabitants: the territory includes 203,426,000, and 6 communes.

ARAMO, a town and fortrefs of South America, in the kingdom of Chili, near the Pacific Ocean.

ARAMONT, a town of France, in the department of the Gard, and chief place of a canton in the district of Nimes, on the west side of the Rhone; 8 miles below Avignon. The place contains 2,200 and the canton 10,577 inhabitants: the territory comprehends 122,900, and 15 communes.

ARAMPO, or MAN-ETES, in zoology, a name given by the negroes on the gold coast of Africa, to a long slender animal, in shape resembling a weasel, with a long tail, and large breadth at its extremity, of a pale brown colour, and long thin hair. It is so called because it digs up graves, and is easier for human flesh. See Ateipe.

ARAMROY, in Geography, one of the principal ports of the district inhabited by a piratical tribe named Sanganians, and situated on the south coast of the gulf of Cutch, between the mouth of the river Indus and Sindo, and the river Puddar.

ARAN, a town of Perfia, in the province of Irak, 35 leagues north of Isphahan.

ARANAS,
ARANAS, a town of Sweden, in the province of Welf Gutland. Aifo, a river of Spain, which runs into the Agra, one league below Pampeluna.

ARANCE, a town of France, in the department of the Ain, and chief place of a canton in the district of St. Rambert; 8 miles E. of Ambronay.

ARANDA, a town of Spain, in Aragon, 19 miles N. W. of Calatayud.

ARANDA de Duero, a small town of Spain, in Old Castile, on the Duero; 30 leagues north of Madrid, and 11 south of Burgos.

ARANDON, a town of France, in the department of the Ille-et-Vilaine, and chief place of a canton in the district of la Tour du Pin; 16 miles S. of St. Sorian.

ARANA, in Ancient Geography, a town of the Lefet Armenia, according to Ptolomy.

ARANEA, in Entomology, a genus of apertous insects, well known by the common English name, Spider. The mouth is furnished with short horny jaws; lip round at the apex; feelers two, incurved, pointed, very acute at the tip, clubbed, with the genitalia in the male; no antennæ; eyes eight, or rarely five; feet eight; anus furnished with papillose, or on the forminating, Gmelin Linn. &c.

Schéffer adds to the Linnæan character, that the feet are made for running; the head united to the thorax and the abdomen, which is of an oval form, and joined to the thorax by a short petiole or stalk. He divides them into different families, according to the various situations of the eyes, in which he followed Frisch, Geoffroy, and others. The eyes of spiders are immovable, and their structure is different from those of most other insects; confining each of only one lens, which deprives them of the faculty of multiplying objects, as their immobility does that of seeing them if placed otherwise than exactly before either of them. Geoffroy observed before, that all spiders have eight eyes, and that the eye at each extremity of the line, in the species which Linnæus believed to have only five, is double.

Fabrics and Gmelin have attended, in the subdivisions of the genus, very carefully to the situation of the eyes, which differ greatly in different species: in some, for example, they form a quadrangle on the back of the head, two looking in front, two behind, and two on each side; the disposition of them in the species Globulae ia altogether different; five of them form a semicircle in front, and three lie parallel to each other behind; in argenta, the order is precisely reversed; three parallel eyes are in front, and the semicircle of five are behind them; in extensa, they form two parallel lines across, of four eyes each; again, in pulchra, two are in front, and fix in a transverse streak; three of which incline to one side, and three to the other; in Goezi, they form two somewhat oblique longitudinal streaks, having four eyes each; in anachus, four are contiguous in the centre, and form a quadrangle, and the four others are disposed in the same order, one at each angle; in conica, according to Gmelin, are two more than usual; three being placed in front, three behind, and two on each side; and in ibivious, all the eyes are disposed in one line, which bends a little in the middle.

The species are numerous; Gmelin describes the following: fusata, diadema, marmorea, reticulata, cucurbita, cayenus, ophioupunctata, bipunctata, armindacca, angulata, riparia, labyrinthic, quadrabella, redemita, corollata, montana, fanguinaevia, nigra, notata, rufoes, nocturna, sexpunctata, cornifex, flavifrons, binaculata, quadri punctata, militari, tricolor, rupitri, aquatica, palustris, triguttata, scorpiformis, vidicera, formica, hexacantha, tetracantha, aculata, spinosa, spinipes, fusata, opilionoides, Olbeckii, Wilkii, speciosa. horrida, latro, doméstica, trilintata, dor- fata, imperforata, tricuspis, globosa, argentata, funigata, clavipes, fuscata, extensa, lobata, longissima, cancriformis, nudulana, hirta, fignata, mactas, nigrita, cor- nuta, simbrinata, orisalis, tanaruta, cinerea, pupleus, fulvaca, fuscus, plicata, goeci, avicularia, truncata, conica, albigans, myops, longipes, fcrabo, fuscata, leopodorum, luca, bicornis, capilis, argentea, holofcrisca, spinimobilis, crenatata, hirtipes, venatoria, eccletia, tribullis, alba. Which see respectively.

Spiders have usually five teats or nipples at the extremity of the abdomen, whof apertures they can enlarge or contract at pleasure. It is through these apertures that they spin a glues substance, with which their bellies are filled. They fix the end of their threads by applying these nipples to that substance, and the threads lengthen as the animal recedes from it. They can flop the string of the threads by contracting the nipples, and recand by means of the claws on their feet. Much in the same manner as men wear up a rope. When the common house-spiders begin her web, she generally chooses a place where there is a cavity, such as the corner of a room, that she may have a free passage on each side, to make her escape in case of danger. Then she fixes one end of her thread to the wall, and pales on to the other side, dragging the thread along with her, or rather the thread follows her as she proceeds, till she arrives at the other side, and there fixes the other end of it. Thus she pales and repales, till she has made as many parallel threads as she thinks necessary for the purpose. After this, she begins again, and croaches the web by other parallel threads. These are the toils or fames which she prepares for entangling flies, and other small insects. But besides this large web, she generally weaves a small cell for herself, where she lies concealed, watching for her prey. Before this cell and the large web she has a bridge of threads, which, by connecting with the threads of the large one, both give her early intelligence when any thing touches the web, and enables her to pass quickly in order to lay hold of it. There are many other methods of weaving, peculiar to different species of spiders, and some that deserve particular notice. Aranea venatoria forms a large cylindrical web under or on, with a lid connected by a kind of hinges, which she can open or shut at pleasure; she watches for her prey at the entrance of her den, which is level with the surface of the ground, and at the least approach of danger retreats into it and shuts the lid, by which means she is completely secure; this is a native of the hotter parts of South America. An European species, labyrinthic, spins an horizontal web on the ground, with a cylindrical cavity below the surface, in which she watches her prey: marmorea spins on the ground nearly in the same manner: some live in trees, and spin long perpendicular webs, as angulata: latens, horrida, and others, spin little webs on the underside of the leaves of plants; and one kind, calycina, will secrete itself in the calyx of a flower, and after the corolla has fallen off, and fallen on flies and other insects that may come to attract its juices.

The darting of long threads, by means of which some species also can convey themselves to a vast distance, is remarkable; and some have adopted, on that account, that spiders have the power of flight; though unquestionably no one will believe that a spider can have wings, as it could no longer be an apterous insect. Dr. Lister says, that attending closely to a spider weaving a net, he observed it suddenly to drift in the mid-work; and turning its tail to the wind, it darted out a thread with the violence and stream with which we see water spout out of a jet; this thread taken up by the wind.
wind was immediately carried to some fathom's length, fill filling out of the belly of the animal. Some time after, the spider leaped into the air, and the thread amounted her up swiftly. Upon this discovery, he made the same observation on near thirty different sorts of spiders, and found the air filled with young and old, hanging on their threads, and double-lefs feizing gnats and other insects in their path; there being often manifold signs of daughter, legs and wings of flies, &c. on the threads, as well as in their webs below.

Dr. Lillie made the like discovery about the same time.

Dr. Lillie thinks there is a fair hint of the darning of spiders, in Aristotle, Hist. An. lib. ix. cap. 30.; and in Pliny, lib. x. cap. 74. But with regard to their failure the ancients are silent, and he thinks it was first seen by him. He also observes of those failing spiders, that they will often dart, not a single thread only, but a whole sheet at once, confiding of many filaments, yet all of one length, all divided each from the other, and distinct, until some chance either snapt them off, or entangle them: but for the most part it may be observed, that the longer they become the more they spread, and appear like the numerous rays of a blazing star. As for that which carries them away in the air so swiftly, it is partly their sudden leap, partly the length and number of the threads projected, and partly the porosity and management of their feet. Dr. Lillie offered some forts to use their legs, very like wings or oars; these being sometimes clofe joined, at others opened, and again bent and extended as necessity required. To fly they cannot be precisely said, because they are carried into the air by external motive; but they can, when the wind will suffer them, flie their course, and perhaps mount or descend at pleasure; and in rowing themselves along the air, it is observable that they ever take their flight backwards. It is feasibly credible to what height they will mount; which yet is precisely true, and may be easily observed by any one that shall fix his eye some time on any part of the heavens, the white webs at a vast distance very distinctly appearing from the azure sky; but this is in autumn only, and in very fair and calm weather. Such are briefly the remarks of Dr. Lillie, to which may be added part of his letter to Mr. Ray on the same subject: "Last October, &c. I took notice that the air was very full of webs; I forthwith mounted to the top of the highest flceple on the Minster (in York), and could there discern them exceeding high above me." He further observes, that they not only thus shoot their threads upward, and mount with them in a line almost perpendicularly; they also project them in a line parallel to the horizon, as may be seen by their threads running from one wall to another in a house, or from one tree to another in a field, and even from wall to wall across gardens of considerable extent.

The matter of which the spider's web is formed, as before observed, is a vivid juice produced in the body of the creature, and emitted from the tracts at the extremity of the abdomen. The apertures in these are numerous, and according to Reaumur, there are enough even in the compass of a pin's head to yield an amazing number of distinct threads. The holes are perceived by their effects: to take a garden spider ready to lay its eggs, and apply the finger on a part of the paper, and as you withdraw the finger a vast number of distinct threads will appear. Reaumur has often counted seventy or eighty with a microscope; but has observed that there were infinitely more than he could tell. In effect, if he should say that each tip of a papilla furnished a thousand, he is assured he would say much too little. The part is divided into an infinity of little prominences, like the eyes of a butterfly. Each prominence, no doubt, makes its several threads; or rather between its several protruberences, there are holes that give vent to threads; the use of the protruberences, in all probability, being to keep the threads adhurder, at their first exit before they are yet hardened by the air. In some spiders these protruberences are not so sensible; but in lieu thereof there are tufts of hairs which may serve the same purpose, viz. to keep the threads at a proper distance from each other. By this it will, there may threads come out at a thousand distinct places in every papilla; consequently the spider having five papille, has holes for above five thousand threads.

Such is the tenacity of the threads in the larger fort of spiders, but if we examine the young produced by those, we shall find that they do sooner quit their egg than they begin to spin. Indeed their threads can scarcely be perceived, but the webs may: they are frequently as thick and clothe as those of the house-spiders; and no wonder, there being four or five hundred little spiders concurring to the same work. How minute must the apertures in the papille of these spiders be! The whole spider is perhaps less than a papilla of the parent which produced it. But there are even some kinds of spiders so small at their birth, that they are not visible without a microscope. There are usually found an infinity of these in a cluster; they only appear like a number of red points; and yet there are webs found under them, though well nigh imperceptible. What must be the tenacity of those web-spiders? Leeuwenhoek has computed that one hundred of the single threads of a full grown spider are not equal to the diameter of the hair of his beard; and consequently, if the threads and hair be both round, ten thousand such threads are not bigger than such a hair. He calculates further, that when young spiders first begin to spin, four hundred of them are not larger than one which is of a full growth; allowing which, four millions of a young spider's thread are not so thick as the single hair of a man's beard.

Some experiments have been made to manufacture the threads of spiders into a kind of silk; and it is said that a short-legged species of garden-spiders yields a silk fearfully inferior to that of the silk-worm. The webs of some foreign species might even be employed with still greater propriety for this purpose, than those which inhabit Europe. A later writer, Sir G. Staunton, in " the Embassy to China," alludes to this when speaking of the Java forests. " In some open spots (says that author) were found webs of spiders, woven with threads of so strong a texture, as not easily to be divided without a cutting instrument; they seemed to render feasible the idea of him who, in the southern provinces of Europe, proposed a manufactury of spiders' threads, which was so ridiculous to the eyes of those who have only viewed the limy webs such insects spin in England."
or two left in each cell; and to this inclination of devouring their own species in common with any other insect they can overcome, Rannier ascribes the fecundity of spiders, considering the vast number of eggs they lay.

But this is not all; he affirms, and it is well known since, that the spider's bag is inferior to that of the silk-worm, both in strength and ifyre, and produces less of the material proper to be manufactured. The thread of the spider's web, he says, can only bear a weight of two grains without breaking; and that of the bag bears thirty-fix. The latter therefore, in all probability, is eighteen times thicker than the former; yet it is weaker than that of the silk-worm, which bears a weight of two drams and an half.

So that five threads of the spider's bag must be put together to equal one thread of the silk-worm's bag. Now it is impossible these should be applied so justly over one another as not to leave little vacant spaces between them, whence the light will not be reflected; and of consequence, a thread thus compounded must fall short of the lisle of a solid thread. Add to this, that the spider's thread cannot be wound off as that of the silk-worm may, but must of necessity be carded; by which means being torn in pieces, its evenness, which contributes to its lisle, is destroyed. In effect, this want of lisle was taken notice of by M. de la Hire, when the flockings were presented to the Academy. Again, spiders furnish much less silk than the worms: the largest bags of these latter weigh four grains, the smaller three grains; so that 23,648 worms produce a pound of silk. The spiders' bags do not weigh above one grain; and when cleared of their dust and fift, lice two-thirds of that weight. The work of twelve spiders, therefore, only equals that of one silk-worm; and a pound of silk will require at least 27,648 spiders. But as the bags are wholly the work of the females, who spin them to deposit their eggs in, there must be kept 55,296 spiders to yield a pound of silk: yet this will only hold good of the best spiders; those large ones ordinarily found in gardens, &c. scarcely yielding a twelfth part of the silk of the others.

Two hundred and eighty, it seems, of these would not yield more than one silk-worm; 663,552 of them would scarcely yield a pound.

The act of generation among spiders varies in different species. As these insects prey upon each other, except during the time of their amours, they dare not come within reach of one another but with the utmost caution. They may be sometimes seen stretching out their legs, shaking the web, and tampering with each other by a light touch with the extremity of their feet; then, in a fright, dropping hitherto down their thread, and returning in a few moments to make a fresh trial by feeling. When once both parties are well allured of the sex they have to deal with, the approaches of their feet in order to feel are more frequent, confidence takes place, and amorous dalliance ensues.

"We cannot," says Lyenont, "but admire how careful they are not to give themselves up blindly to a passion, or venture on an imprudent lep, that might become fatal to them." A caveat this to the human kind. Lifer and Lyonnet, two accurate observers, say, that the extremity of those arms or claws, which the spider nies to grasp his prey with, suddenly opens, as it were by a spring, and lets out a white body, the sexual organs in the male; those of the female are beneath the abdomen; a fact which later naturalists have ascertained.

Thesequulating animals, in every stage of their existence, preying with the most savage ferocity upon all insects they can overcome, and also upon one another, as already observed. They cast their silks once in a year, and this they perform by suspending themselves in some corner, and creeping out of it. In respect of colour, they vary greatly in individuals of the same species. The fphex and ichneumon are their mortal enemies.

The weapon wherewith the spiders seize and kill their prey is a pair of sharp crooked claws, or forceps, placed in the tergum of the head. They can open or extend these pincers as occasion may require; when undisturbed, they suffer these to lie one upon another. Lecouwenhoek says, that each of these claws has a small aperture, or slit, through which he supposes a poisonous juice is injected into the wound it makes. Dr. Mead, in his Essay on Poisons, differs from this opinion altogether, having never been able, on repeated examinations, to discover any such opening, not even in the claws of the largest spiders; which being above fifty times larger than any of the European spiders, would have more easily afforded a view of the opening, if nature had allotted any to this part of the animal. Besides, repeated observations also convinced him that nothing dropped out of the claws of the living spider when he bit any thing, because they were always perfectly dry; but that a fluid profusely was at the same time thrust out of the mouth, which unfilled a liquor into the wound. And the same writer observes, that the quantity of liquor emitted by the common spiders when they kill their prey is visibly very great, and these wounded instruments (the claws) at minute, that they could contain but a very inconsiderable portion thereof, if it were to be discharged through them. In justice to this remark of Dr. Mead, it may be added, that though there is an apparent groove or indentation visible on these fangs, in some very gigantic species, they do not appear to be perforated; and in general they are smooth without even this apparent indent. The form of the fang may be compared in some respects to those of a poisonous snake: the latter, beside the aperture at the base, has a linear opening near the tip; and through this, and perhaps the other also, it discharges a mortally poisonous fluid into the wound it inflicts, in the same manner as the spider is supposed to do: now, in some great spiders, these fangs are nearly, if not quite, as large as those of a rattle-scare of a moderate size; and yet, in such an aperture, if it does really exist, is not only invisible to the naked eye, at the same time that they are sufficiently obvious in the fang of the snake, but appears even dubious under the most powerful glass with which the claw can be examined. Thus, before said, a kind of groove or indented in the claws of some species; but whether they answer the above purpose, or are even perforated, is a point on which the naturalist must decide with caution.

The silks that have been fed, and are found in the webs, being dry and transparent, have also the claws attached to them; and these may be more easily examined than in the living spider.

Araecia, in Mineralogy, a silver ore found only in the mines of Potosi, or in the finge mine there of Catamito. It owes its name to some resemblance it bears to a cobweb, being composed of threads of pure silver, which to the sight appear like a silver lace when burned to separate the silk from it. It is the richel of all kinds of silver ore.

Araeaea Tonicia. See Arachnoides.

Araeiformis, in Entomology, a species of Cerambyx. The thorax is spinous and tuberculated; wing-cases porous; antennae long, with a fingle tooth on the fifth joint. Fabr. Spec. Inf. Of. Gmelin misquotes the Fabrianian character, "articulo quinto unidentato," for "articulo quinto barbaro," p. 1819. "This insect inhabits South America."

Araeiformis, in Natural History, a species of Echium. It is orichal, grey, with blaining greyish-purple.
spines, which are thicker in the middle. This is Echinomorpha mutipila f. Minosiflora Americana of Seba; and Spina-cekoff, Pflie. Zee-egl. Inhabits the American tans. Gemelin.

ARANEOIDES, in Entomology, a species of CINEX, in the section "oblongus." It is yellow, with very long legs, and inhabits Germany. Schaff. Gemelin.

ARANEOUS, a species of CANEX, found in the European seas. The thorax is ovate, tuberculated, and hairy; front bin; claws ovated Linn. Fabr. Gemelin.

ARANGAS, in Ancient Geography, a mountain placed by Ptolemy in the interior Syria.

ARANGHERA, in Geography, one of the Bifflages islands in the Atlantic, at the mouth of the river Grandi, near the coast of Africa.

ARANIMEGIES, a small but beautiful town of Hungary, in the country of Zatmar, situate in the middle of a plain between the rivers Samos and Tur; three leagues north-eaft of Zatmar.

ARANISO, a river of Transylvania, which rises near Clujemburg, and joins the Marich.

ARANJUEZ, a village and royal palace of Spain, in New Calbros, situate on the Tagus, six leagues north-eaft of Toledo, and ten fouth of Madrid.

ARANJUEZ, a town of South America, in Mexico, in the province of Costa Rica.

ARANNOS, a town of Spain, in Navare, three leagues from St. Efevan.

ARANTA, a sea-port town of South America, in Peru, and jurisdiction of Arequipa, with a deep harbour and narrow entrance; ten leagues south-well of Arequipa.

ARANTIA, in Ancient Geography, a country of Pelopon- aeus, according to Pausanias; and also a town of the fame country, situate on a bill, called "Arantius Collis."

ARANTITUS, JULIUS CESAR, in Biography, a cele-bated anatomist and phyfician, born at Bologna, about the year 1530; studied under his uncle Bartholomew Maggius, and under Vesalius; and took his degree of Doctor in Medicine, and was afterwards made professor of medi-cine, anatomy, and surgery, in the fame university; in which situation he continued to the time of his death, in 1589. He was indefatigable in his researches into the structure of the human body, which he took every oppor-tunity of difsecting and examining. In his first work, "De humano favo," published at Rome, in 1574, he corrected many mistakes of former anatomists, in their description of the uterus, which they had generally taken from brutes. He properly describes the velum of the uterus as derived from the perranetics and hypogastrics. He described the fornemen ovale, and ductus anteriores in the fawus; and denies the existence of urachus, or of allantoid membrane, in the human subject. This book has been frequently re-published. In 1579, he published "In Hippocratem de vulneribus capitatis brevis commenrarius;" and in 1581, "De tumoris praeter naturam hiber," 4to; in which he describes a pair of forer was he had contrived to extract polyipi from the nostrils. He showed there was no cagage from the right to the left ventricle of the heart, but that the blood was carried from the heart, through the lungs, by the pulmonary artery; thus making one step towards the discovery of the circulation of the blood, which was after-wards completed by Harvey. Halier Biblroph. Anat. et Bib. Chirurg.

ARANYVAN, in Geography, a fortrees of Transylvania, in the county of Weilmberg, on the north side of the Marich, five miles north of Millenbach.

ARAPABA, in Botany. See Spigelia.

ARAPHA, in Ancient Geography, an island which belonged to Caria. Steph. Byz.

ARAPUS, the name of a river of Carmania, according to Ptolemy.

ARAYAS, in Geography, a town of Spain, in Arragon, four leagues north-north-west of Jaca.

ARAVUL, a town of Spain, in Navare, five leagues west of Pampluna; supposed to be the ancient Arcuillum, or Arocotes.

ARAR, in Ancient Geography, the Salinc, a river of Celtic Gaul, which, according to Cesar, separated the territory of the Sequani from that of the Aoins; and the course of which is to flow, that its motion cannot be perceived; whence Pliny calls it "the sluggish river," and Silius Italicus describes it (ib. xv. v. 544. p. 773. ed. Drakob.) to the fame purpose:

"Quorum ferpit Arar per rura pigrissimum undas."

Over this river the soldiers of Cesar built a bridge in one day.

ARARAT, a mountain of Alia, in Armenia, on which the ark of Noah rested after the effaision of the deluge. Concerning the etymology of the name, Dr. Bryant ob-serves (Anc. Myth. v. in. p. 2.), that it is a compound of Ar-drat, and significs "the mountain of descent," being equivalent to 777-777, Har-ird, of the Hebrews.

Of the precise sitution of this mountain different accounts have been given. Some have supposed that it was one of the mountains which divide Armenia on the south from Mesopotamia and that part of Affria inhabited by the Cords, from whom those mountains took the name of Cardue, or Cardu; by the Greeks denominated Gorgyzi. It is called by the Arabs Al-Jadui, and also Thamannin. In confirmation of this opinion, it is alleged that the remains of the ark were to be seen on these mountains; and it is said, that Beroulus and Ibadenus both declare, that such a report existid in their time. Epiphanius pretends, if we may credit his assertion, that the relics of the ark were to be seen in his time; and we are further told, that the emperor Herachius went from the town of Thamannin, up the mountain Al-Jadui, and saw the place of the ark. Others maintain, that mount Ararat was situated towards the middle of Armenia, near the river Araxes, or Aras, about twelve miles from it, according to Tournefort, above 290 miles distant from Al-Jadui, to the north-eaft. This mountain is called "Mafa" by the Armenians, and by the Turks "Agirgah," or the heavy and great mountain; and stands about twenty leagues to the south-eaft of Erivan, and of Ejmiadzin, from which it is distant about two short days' journey; four leagues from the Aras, and ten to the south-west of Naxuan, or Nachidhevan, or Nashi, of M. D'Anville, and the Naxuan of Ptolomy. Near this city is another small town, mentioned by William de Rubriquis, who travelled through Armenia in 1533, and called Cemainum, which is by interpretation eight, and as he says, so called from the eight persons who came out of the ark and built it. This is supposed to be the fame with Shemainum or Shemunum, formed of the Hebrew שמעון, eight, or the Thamannin and Thammanim of Elmarcieri and others, which was said to have been built by Noah. Ararat seems to be a part of that vall chain of mountains called Caucasia and Taurus; and upon these mountains and in the adjacent country, were preferred more authentic accounts of the ark than in almost any other part of the world. The region about Ararat, called Araratia, was esteemed among the ancients as nearly a central part of the earth; and it is certainly as well calculated as any other for the accommodation of its first inhabitants, and for the migration of
of colonies, upon the increase of mankind. The soil of the country was very fruitful, and especially of that part where the patriarch made his first settlement. The country also was very high, though it had fine plains and valleys between the mountains. Such a country, therefore, must, after the flood, have been the home of the Noah of that place and the place of which the Patriarch was the lord, and that country would be as fertile as it is now.

Strabo, who was a native of Asia Minor, speaks expressly of the fertility of Armenia, and especially (lib. xi. t. ii. p. 503) of the region opposite the place of which he particularly mentions as productive of olive.

It is not certain when the descendants of Noah migrated into this country. Many of the fathers of the Parsee race, tradition says, that they did not leave it for some ages. According to Ephiphanus (Hær. Ebr. i. p. 5.), they remained in the vicinity of Ararat for five generations, during the space of 659 years. Probably Noah might never depart from it; nor have we any account of his sons leaving it till the general migration.

The mountain has still the name of Ararat, which it has retained through all ages. Tournefort (vol. ii. 267, &c.) has particularly described it, and from his account it seems to consist chiefly of free, fine, or calcareous sandstone. It is a detached mountain in form of a sugar-loaf, in the midst of a very extensive plain, consisting of two summits; the latter more firm and pointed, the highest, which is of the ark, lies north west of it, and raifies its head far above the neighbouring mountains, and is covered with perpetual snow. When the air is clear, it does not appear to be above two leagues from Erivan, and may be seen at the distance of four or five days journey. Its being visible at such a distance, however, is ascribed not so much to its height, as to its lonely situation, in a large plain, and upon the most elevated part of the country. The ascent is difficult and fatiguing. Tournefort attempted it; and after a whole day's toil, he was obliged, by the snow and intense cold, to return without accomplishing his design, though in the middle of summer. On the side of the mountain that looks towards Erivan, is a prodigious precipice, very deep with perpendicular sides, and of a rough black appearance, as if tinged with smoke.

Arrat, Mount, or the stone head, is the name of a short range of mountains on the northern front of North Carolina, in a north-east direction from Ararat river, which is a north-west branch of Yadkin river.

Arraubina, in Ornithology, a species of Psittacus. Above blue, beneath yellow; cheeks naked, with feathered linses. Gmelin, &c. The length of this bird is two feet seven inches. Its bill is black; forehead to the crown and sides of the head dull green, the rest of the body above fine blue to the coverts of the tail; cheeks and throat covered with a bare white fleck; each cheek marked with black lines composed of very short feathers, which arise at the angles of the mouth, and pass beneath the eyes towards the back of the head; the eye-lids are edged with black; irides pale yellow; beneath, the body is of a pale cinnamon colour, and in some there is an intermixture of this colour on the wing coverts; the tail is blue above, and the inner margins of the feathers violet, except the two in the middle; it is wedge-shaped; the legs cinnaeous, and the claws black.

This bird inhabits Jamaica, Guiana, Brazil, and Surinam.

Another parrot, nearly resembling this, is described by different authors; it has not the feathered lines on the cheeks which are so conspicuous in this species, and the top of the head is blue instead of green. Gmelin calls it a variety (5), though he gives it a specific name erubescus; blue parrot, or macaw; psittacus maximus erubescus varius, cauda producua, Brown. Jam. & Gmel. This bird inhabits the same places as the other, but is more uncommon. The natives know the two birds by their cry, and they say the latter does not pronounce the word aru so distinctly as the blue and red macaw, or parrot.

Arrat, in Geography, a river of South America, which runs into the Northern Sea, in the province of Tamara.

Arras, the ancient Arrates, a river of Asia, which rises in the Caucasian mountains, and after traversing Armenia and part of Persia, discharges itself into the Kur, or Cyrus. Arraseng, a town of Persia, in the province of Irak, ten leagues south of Casrin.

Arrasissi, a merchant town of Italy in the state of Genoa. It is a place of some trade, and well peopled, and here vessels may be hired for Genoa or any port of Italy. N. lat. 44° 2'. E. long. 7° 20'.

Arratiea, in Antiquity, a yearly festival celebrated at Sicyon, on the birth-day of Aratus, wherein divers honours were paid by a priest consecrated to this service, who for dedication's sake wore a ribbon beseamed with white and purple spots.

The arrasia were solemnized with much pomp of music, the choirs of Bacchus attending. Potter, Archael. lib. ii. cap. 20.

Arrathapescow, in Geography, an Indian tribe, inhabiting the shores of the lake and river of that name, in the north-west part of North America, between N. lat. 57° and 59°. North of the abode of this nation, and near the Arctic circle, is lake Edland, around which live the dog-ridden Indians.

Arato-Ababenh, in Afronomy, a fixed star of the second magnitude in the head of the Dragon.

Aratum terra, in our Ancient Law Books, as much land as can be yearly tilled with one plough.—Hoc manorium et 50 aratuum.

Arratura terra, an ancient service which the tenant was to do his lord, by ploughing his land.

Aratus, in Biography and Ancient History, a famous general of the Acheans, was the son of Clinias of Sicyon, and born about the year before Christ 273. When his father and several of his kindred and friends were either massacred or banished by the tyrant Abantidas, Aratus, being then about seven years of age, made his escape, and found an asylum in the house of the tyrant's father; after concealing him for some time, the sent him privately to his friends at Argos. Here he received a liberal education, and distinguished himself by his skill and strength in athletic exercises. Having conceived becomes a detestation of tyrants, he had fearlessly attained his 20th year he before formed a plan of refusing Sicyon, his native place, from Nicholas, who was then its tyrant. With his view he fealed the walls by night, and at day-break invited the citizens, by the voice of a herald, to refuse their ancient liberty. The summons was joyously obeyed, and the city regained its freedom by a revolution, which did not cost a single life. For its future security against the partisans of Nicholas, he found it necessary to unite this city with the confederacy, called the Achaean league; and having been enrolled with supreme constitutional power in Sicyon, he exercised it in a manner which gained him universal eileem, and contributed
to the establishment of order and tranquility. In the office of pretor, or general of this league, to which he was afterwards advanced, he recovered the citadel of Corinthus from a Macedonian garrison, by a military intregacy that has been highly applauded, and thus induced other cities to join the confederacy. Aratus also removed Argos from its tyrant Artilus, by perceiving his weakness and valuing Sicily, according to others to Tarus; and flourished about the 25th Olympiad, or about 275 years before Christ. Having received instructions from Memocrates the Ephesian grammian, and the philosophers Tiron and Menedemus, Dionysius Heracotnes, and Perfeus the Boeot, he was patronized by Antigonus Gonatas king of Macedon, who encouraged him in his studies and appointed him his physician. He went to Macedon at the time of the celebration of the murtials of Antigonus and Phila the daughter of Antipater, and continued at his court during the remainder of his life. Of his poetical works, which were his chief productions, the only piece extant is an astronomical heroic poem, in Greek, entitled "Phaenomena." In this poem he treats of the nature and motions of the heavenly bodies, the figures of the constellations, their relative situations in the sphere, their rising and setting, and the fables connected with their names. Cicero, when young, translated this poem into Latin verse, and highly commended the poetry, though he does not allow that he understood astronomy. De Orat. lib. i. For the materials of this poem, it is said, that he was indebted to Eudoxus. Grotius thinks, that he transferred into his poem the observations of various authors in different climates, and for want of astronomical knowledge, confounded them. Among the ancient this poem had many admirers, and it has had numerous commentators: Virgil has copied it in his "Georgies," and St. Paul has made a quotation from it. Acis, xvii. 28. The words "Τα γης και χυς αδενον," for we are also his offspring, are a part of the fifth line of this poem; and other passages, to which this citation has been referred, in Cleanthes's hymn to Jupiter, Pythagoras's golden verses, and Oppian's Halieutica, though they agree in sentiment, vary in expression. Quineticus (Inblit. Orat. l. x. c. 1.) observes, that the subject of this poem has nothing of the pathos, no variety, no fictitious persons introduced speaking, with the other ornaments which have so great an effect in other kinds of poetry; however that the author was very capable of executing the design he undertook. Besides Cicero's translation of Aratus, of which a few fragments remain, we have an entire version in Latin hexameters, by Caesar Germanicus, and another by Avienus. In later times, the poem of Aratus has been translated into Latin by Aelius, printed in 480. at Paris, in 1613; and in 480. by Grotius at Leyden, in 1603; and also into various modern languages. The principal editions of the Greek original are in 480. by Morell, at Paris, 1539; in folio, by H. Stephens, at Paris, in 1570; in 8vo, at Oxford, by bishop Fell, in 1674; in 480. at Leyden, in 1603; at Paris, in 1480; at Bologna, in 1649; in 8vo, by Salvius, in Greek, Latin, and Italian, at Florence in 1765. It is also contained in the editions of the ancient astronomers. Facs. Bib. Grac. l. iii. c. 18. t. 2. p. 490, &c. Gen. Diet.

ARAVA, in Geography, a fortress of Upper Hungary, in a country and upon a river of the same name. Lat. 49° 20'. E. long. 20°.

ARAVACOURCHY, a town of Hindustan, in the Mysore country, 17 miles south-west of Carrol, and 23 north of Dindigul. Lat. 10° 45'. E. long. 75° 1'.

ARAUCO, a fortress and town of Chiti in S. America, situate in a fine valley on a river of the same name, north by west from Baldivia. The native Indians, called Arauques or
or Araceens, are so brave that they drove the Spaniards out of their country, though deficient of fire-arms. A peace was concluded between them and the Spaniards in 1659, which was celebrated in a poem by Alonzo de Ercilla.

S. lat. 32°. 30. W. long. 73° 20'.

ARAVITA, a town of Spain, in the country of Cordova, 16 leagues from Cordova.

ARABUS, now Ervat, in Ancient Geography, a river of Gallia Narbonensis, called by Strabo, Araura.

ARAUSA, a town of Iltras, placed in the itinerary of Antoninus, 20 miles from Blancom, in the way to Salamina.

ARAUO, Civitas Araruentara, or Araruentara, called Caelonia Scenodorum, because the veterans of the second legion were settled there, the capital of the Cavares in Gallia Narbonensis. This is now Orange in the west of Provence, on an arm of the River Rhone, which soon after falls into the Rhone, from which it is distant about a league to the east, at the foot of a mountain. An ancient amphitheatre is still to be seen in this place. N. lat. 44° 10'. E. long. 4° 46'.

ARAZONZA, a town of Illyria, according to Ptolemy.

ARAW, or ARAU, in Geography, a town of Switzerland, in the Argow, and canton of Berne, situate on the river Aar, in a fertile country, and containing about 1700 inhabitants. The principal manufactures are cotton, cotton stuffs, printed linens, cutlery, and tanning. It is a large and handsome town; 21 miles south-east of Bale. The treaty of peace concluded in 1712, at Araz, between the protestant and catholic cantons, is one of the fundamental principles of the Helvetic union, or of the code of public law between the combined republics of Switzerland. N. lat. 47° 25'. E. long. 4° 06'.

ARAXA, a river of Spain, which runs into the Oro to Toloba.

ARAXA, in Ancient Geography, a town of Asia, in Lycia, according to Ptolemy and Stephan. Byz.

ARAXAI, in Geography, a river of South America, in Brazil; its course was towards the prefecture of Parara, where it discharged itself into the river Mongagua.

ARAXES, in Ancient Geography, now Aras, a river of Armenia Major, which rofs in a mountain called by Strabo Abos (Ice Aras), and by others Capotes and Achos, a part of the Caucasus; continued its course eastward to the city of Atropatane, and thence inclining north-westward flowed near Azara and Artax, and fell at length, as Strabo and other geographers say, into the Caspian Sea, near the mouth of the Cyrus; but according to Plutarch, Pliny, and Arias, with whom our modern geographers agree, into the Cyrus. Ptolemy, indeed, divides the Araxes into two branches, and represents one as falling into the Cyrus and the other into the Caspian Sea. Its impetuous course, which would not admit of a bridge, is described by Virgil, En. viii. 466:

"Poncim dignatus Araxes."

On the banks of this river have appeared, at different times, the most renowned warriors of antiquity, Xerxes, Alexander, Lucullus, Pompey, and Mithridates. See ABAAS. Roland and Calmet are of opinion, that the Araxes is the Gihon of Genesis; and the name of Gihon signifying, according to its Hebrew etymology, the impetuous, eruptive river, confirms this opinion. However, the Gihon of the Arabian was the Oxus, and not the Araxes of the ancients. There are two rivers which bear the name of Araxes, one in Media and the other in Persia, which have been sometimes confounded. The first is that above described; the other runs through Persia, washes the walls of Schiras, and is now distinguished by the name of Bend-Emir, or BUNDAMIR.

ARAXUM, a promontory of Achaia, bearing towards the north-west.

ARAYA, in Geography, a celebrated cape of South America, in S. lat. 14° 2', situated in Trinidad and New Andalusia; and forming the gulf called by the Spaniards "Gulf de Caracoa."

ARAZ, a mountain of Arica within the province of Gigeri or Jigel, bordering on the Nandiin Desert; which stretches between 25 and 30 leagues in length from north to south, and is very where very difficult of access. The inhabitants are a race of Arabs, called Cabyleans: a was-like people, who made this ridge the last refuge of their liberty, and have preferred it ever since by the natural strength of their Physicians. Before the year 1664, they used to traffic with the French factory at Gigeri, and carried thither hides, corn, and wax; but upon the breaking out of a war between France and Algeria, a fort was built on the sea-coast to be a check on these Arabs. The French admiral was attacked during the work, and the fort demolished; and since this time they have occasionally plundered all strangers that are wrecked upon their coasts, and indiscriminately made slaves of their prisoners, though they have belonged to nations in amity with Algiers and the Porte; the Morocanians only are discharged, and sent home with a small vicissitude.

ARBA, in Ancient Geography, a name given to Hebron, first polluted by giants of the race of Anak; and afterwards given to the tribe of Judah, and the property of it to Caleb. The rabbins pretend that Hebron had the name Arba, signifying four, because the four most illustrious patriarchs, Adam, Abraham, Isaac, and Jacob, were buried there; or, as others say, with as little reason, because four of the most celebrated matrons of antiquity were interred there; viz. Eve, Sarah, Rebecca, and Leah.

ARBA, now Arba, an island and city of Illyria, now belonging to the states of Venice, and situate in the gulf of Quaruaro on the coast of Dalmatia. The city is a bishop's see. Although this island is not larger in circumference than about 30 miles, wholly uncultivated, and in some parts uninhabitable, the city has always, from the time of the Romans, maintained its reputation. In the eleventh century, gold and silk were not rare among the inhabitants. It became subjeet to the kings of Hungary, and afterwards dependent on Venetian feudatories, and at length was reduced under the dominion of the republic, which appoints a governor with the title of count and captain. The whole number of people in the island does not exceed 3500, who are nevertheless obliged to maintain three convents of friars, and as many of nuns, and near 60 priests. The climate is very variable, and subject to tremendous and destructive storms, which are very fatal to the sheep that are kept in the pastures of the mountain, and no less injurious, when they occur, to the plants and corn. The air, however, is upon the whole favorable, and the aspect of the island is very pleasant. On the east it has a high mountain, at the foot of which, towards the west, are fruitful plains interspersed with little hills which are very productive. At the northern extremity is a delightful promontory called Loparo, that stretches into the sea, and that includes a cultivated plain; near which are two small islands called S. Gregorio and Goli, very useful to shepherds and fishermen. The coast that faces the Moracca mountains is steep and inaccessible, and the channel between them is very dangerous. The long and narrow island, called Dolin, lying parallel to Arba, along the coast of Barbado, forms a channel less dangerous. In the vicinity of the city of Arba there are several harbours, by which the trade of the belt part of the island is facilitated. The city stands on an eminence between two harbours, which form a peninsula, and contains about a thousand inhabitants.
inhabitants. At the foot of the Moraca, the soil towards the shore is nothing but marble; but in the district of Barbado it is gravelly and fit for vines, which yield a wine that is much esteemed. Below the ruins of Coletno, the land bears vines, olives, mulberry, and other fruit-trees; and also in the lower parts, corn. The island is well supplied with springs of water, and would furnish its inhabitants with ample subsistence, if they were not in the extreme languid and indolent. It produces, however, fire-wood, of which quantities are annually conveyed to Venice; corn, oil, wine, brandy, and silk; and also hogs, wool, sheep, hogs, and horses of a good breed. It has likewise abundance of good flat; and the fisheries of tunny and mackerel supply no considerable articles of trade. The island, notwithstanding these advantages, is poor, because much of the land remains uncultivated, and the peasants are lazy.

Arba, Aftab, a river of Aria in Persia. Its source is in the vicinity of the town of the kings of Parthia, while the Tigris, and falls suddenly in the night on Sardana-palus, drove him from his camp; upon which this prince retired to Nineveh, and entrusted the command of his army with Sisamanus, his wife's brother, who was overpowered by the confederates, and left almost the whole of it. The confederates proceeded to besiege Nineveh, and after ineffectual efforts, for two years, for reducing it, a considerable breach was made in the wall by the inundation of the river Tigris, and thus they were enabled to enter and take possession of the city. Upon this success, Sardana-palus retired into his palace, and placed himself, his companions, and his treasures, on a pile of wood, to which he set fire, and they were thus all destroyed. This event terminated the Assyrian empire about the year 820 before Christ, according to Eusebius; but according to Justin and others, in the year 900 before Christ; and Arbaces was declared king. With him commenced the monarchy of the Medes, and he reigned 28 years. He is represented as a prince of great generosity and gratitude; and Dr. Prideaux supposes that Tiglath-Pileser and Arbaces are the same person, under different names; whereas archbishop Uther distinguishes them, and assigns to the one the polition of Media, and to the other that of Assyria. Prid. Conn. pt. i. b. 1. See Media.

Arbæjyn, in Geography, a town of Arabia, 12 miles north of Zebl. See Craft Bow, and Ballista.

Arbal, in Ancient Geography, a Sarmatian nation, according to Ptolemy, and supposed to have inhabited the part of Aria which is near the Wolga.

Arbana, the name of an island in the vicinity of Taphroban, according to Ptolemy.

Arbaniun, a town placed by Stephan. Byz. in the neighbourhood of the Enuine sea. See Craft Bow, and Ballista.

Arbasera, a town of Aria Minor, towards Galatia. Arbatiss, a town of Palestine in Galilee, taken and destroyed by Simon Maccabees. 1 Mac. v. 23.

Arbega, in Geography, a town and castle of Spain in Catalonia, 10 miles call of Lerida.

Arbeggen, a town of Transylvania, seven miles north of Stolzenburg.

Arbelesa, now called Erbol or Erbol, in Ancient Geography, a city of Aria, in the province of Arlabene, and district of Arbel, famous for the complete victory gained by Alexander the Great in the battle with Darius Commanus, which was fought at the village of Gaugamela in its neighbourhood. Ptolemy places it on the river Capros; but Strabo at an equal distance from that river and the Lyca, near mount Nicatorus, so called by Alexander, from the above-mentioned victory. Diodorus Siculus and Curtius call it a village; but Arrian (l. vii. p. 351.) dignifies it with the name of a city; and from this the adjacent country was denominated Arbelis and Arbelitis. This battle was fought in the month of October, in the second year of the 14th Olympiad, or 334 years before Christ. According to Arrian (De Exp. Ales. l. iii. p. 115. ed. Gronov.) the army of Darius consisted of a million of foot, and 40,000 horse; but according to Diodorus (l. xix. vol. ii. p. 205. ed. Weilinger.) of 250,000 foot, and 800,000 horse. Plutarch (Oper. t. i. p. 682.) says that the whole army consisted of a million; and Julius (x. c. 13.) rates the number at half that of Diodorus. The Macedonian army consisted of 40,000 foot, and 7000 horse. Arrian (ubi supra) and Curtius (l. iv. c. 27. &c.) have given a particular description of this famous battle. We shall here subjoin the account of it given by Dr. Gillies, in his "History of Greece.

Alexander, when apprized of the great strength of the enemy, expressed neither surprise nor apprehension. When advised by Parmenio to attack Darius's camp in the night, he replied, that it did not become Alexander to steal a victory, and therefore he was resolved to fight and conquer in broad day-light. Darius, he also said, by bringing all his forces into one place, had freed him from the trouble of thinking how he might purify them into different countries. "Having commanded a halt (says Dr. Gillies,) he encamped four days, to give his men rest and refreshment. His camp being fortified by a good intrenchment, he left in it the sick and infirm, together with all the baggage; and, on the evening of the fourth day, prepared to march against the enemy with the effective part of his army, which was said to consist of 40,000 infantry and 7000 horse, unincumbered with any thing but their provisions and armour. The march was undertaken at the second watch of the night, that the Macedonians, by joining battle in the morning, might enjoy the important advantage of having an entire day before them to reap the full fruits of their expected victory. About half way between the hostile camps, some envoys intercepted the view of either army. Having ascended the rising ground, Alexander first beheld the Barbarians drawn up in battle array, and perhaps more skillfully marshalled than he had reason to apprehend. Their appearance, at least, immediately determined him to change his first resolution. He again commanded a halt, summoned a council of war; and different measures being proposed, acceded to the single opinion of Parmenio, who advised that the foot should remain stationary until a detachment of horse had explored the field of battle, and carefully examined the disposition of the enemy. Alexander, whose conduct was equalled by his courage, and both surpassed by his
his activity, performed these important duties in person at the head of his light horse and royal cohort. Having returned with unexampled celerity, he again assembled his captains, and encouraged them by a short speech. Their ardour corresponded with his own; and the folders, confident of victory, were commanded to take call and refreshment.

Meanwhile Darius, perceiving the enemy's approach, kept his men prepared for action. Notwithstanding the great length of the plain, he was obliged to contract his front, and form in two lines, each of which was extremely deep. According to the Persian custom, the king occupied the centre of the first line, surrounded by the princes of the blood and the great officers of his court, and defended by his horse and foot guards, amounting to 15,000 chosen men. These splendid troops, who seemed better for parade than battle, were flanked on either side by the Greek mercenaries and other warlike battalions, only, which could be selected from the whole army. The right wing consisted of the Medes, Parthians, Hyrcanians, and Sceæ; the left was chiefly occupied by the Bactrians, Persians, and Cappadocians. The various nations composing this immense host were differently armed, with swords, spears, clubs, and hatchets; while the horse and foot of each division were promiscuously blended, rather from the result of accident than by the direction of design. The armed chariots fronted the first line, whose centre was farther defended by the elephants. Chosen squadrons of Scythian, Bactrian, and Cappadocian cavalry advanced before either wing, prepared to bring on the action, or, after it began, to attack the enemy in flank and rear. The unexpected approach of Alexander within the sight of his tents prevented Darius from fortifying the whole extent of his camp; and, as he dreaded a nocturnal assault from enemies who often veiled their designs in darkness, he commanded his men to remain all night under arms. This unusual measure, the gloomy silence, the long and anxious expectation, together with the fatigue of a restless night, discouraged the whole army, but inspired double terror into those who had witnessed the formidable disasters on the banks of the Granicus and the Ilus.

At daybreak, Alexander disposed his troops in a manner suggested by the superior numbers and deep order of the enemy. His main body consisted in two heavy-armed phalanxes, each amounting to above 16,000 men. Of these the greater part formed into one line; behind which he placed the heavy-armed men, reinforced by his targeters, with orders that when the out-spread wings of the enemy prepared to attack the flanks and rear of his first line, the second should immediately wheel to receive them. The cavalry and light infantry were disposed on the wings, that while one part resisted the shock of the Persians in front, another, by only facing to the right or left, might take them in flank. Skilful archers and darters were posted at proper intervals, as affording the best defence against the armed chariots, which (as Alexander well knew) must immediately become useless whenever their conductors or horses were wounded.

Having thus arranged the several parts, Alexander with equal judgment led the whole in an oblique direction towards the enemy's left; a movement which enabled the Macedonians to avoid contend when at once with superior numbers. When his advanced battalions, notwithstanding their carpets to the enemy, fell flanked towards the right, Darius also extended his left, till, fearing that by continuing this movement his men should be drawn gradually off the plain, he commanded the Scythian squadrons to advance, and prevent the farther extension of the hostile line. Alexander immediately detached a body of horse to oppose them. An equilibrant combat ensued, in which both parties were reinforced, and the barbarians finally repelled. The armed chariots then flung forth with immeasurable violence; but their appearance only was formidable; for the precautions taken by Alexander rendered their assault harmless. Darius next moved his main body, but, with too little order, that the horse, mixed with the infantry, advanced, and left a vacuity in the line, which his generals wanted time or vigilance to supply. Alexander fixed the decisive moment, and penetrated into the void with a wedge of squadrons. He was followed by the nearest sections of the phalanx, who rushed forward with loud shouts, as if they had already pursued the enemy. In this part of the field, the victory was not long doubtful: after a feeble resistance, the barbarians gave way; and the pugnacious Darius was foremost in the flight.

The battle, however, was not yet decided. The more remote divisions of the phalanx, upon receiving intelligence that the left wing, commanded by Parmenio, was in danger, had not immediately followed Alexander. A vacant space was thus left in the Macedonian line, through which some squadrons of Persian and Indian horse penetrated with celerity, and advanced to the hostile camp. It was then that Alexander derived signal and well-earned advantages from his judicious order of battle. The heavy-armed troops and targters, which he had skillfully posted behind the phalanx, speedily faced about, advanced with a rapid rep, and attacked the barbarian cavalry, already entangled among the baggage. The enemy, thus surprised, were destroyed on the spot. Meanwhile, the danger of his left wing recalled Alexander from the pursuit of Darius. In advancing against the enemy's right, he was met by the Parthians, Indian, and Persian horse, who maintained a sharp conflict. Sixty of the Companions fell; Hephæestion, Cœrus, and Memiæus were wounded. Having at length dissipated this cloud of cavalry, Alexander prepared to attack the foot in that wing. But the business was already effected, chiefly by the Thébaians horse; and nothing remained to be done, but to purify the fugitives, and to render the victory as decisive as possible.

According to the least extravagant accounts, with the loss of 600 men he destroyed 40,000 of the barbarians, who never thenceforth assembled in sufficient numbers to dispute his dominion in the East. The valuable provinces of Babylonia, Susiana, and Persis, with their respective capitals of Babylon, Susa, and Peripolis, formed the prize of his skill and valour. The gold and silver found in those cities amounted to thirty millions sterling; the jewels and other precious spoils, belonging to Darius, sufficed, according to Plutarch, to load 20,000 mules and 3000 camels.

Arebla, a town of Sicily mentioned by Steph. Byz. and also by Suidas.

Arebla, a village of Palestine on the other side of Jordan, dependent upon Pella, according to Eusebius.—Alfo a place of Galilee, in the vicinity of Sephoris, according to Josephus, Antiq. i. 12.—Also, a village of Upper Galilee, near which were caverns, where thieves retired for concealment.

Arbængian, in Geography, a town of Tartary, in the country of Zagatai, and territory of Samarcand.

Arber, a town of Switzerland, in the canton of Berne, situated on the river Ar, which almost encompasses it. N. lat. 47°. E. long. 17°. 15′.

Arberœue, the name of one of the seven dittrics that compose lower Navarre, containing seven parishes.

Arbespach, a town of Germany, in the archduchy of Austria, six miles south-west of Zwettl.
ARBESTAAL, a town of Germany, in the archiduchy of Austria, five miles south of Bragg.

ARBBI, a small country of South America, near the Andes, between Popayan and New Granada.

ARBIA, a small river of Italy, which rises in the territory of Florence, passes through that of Sienne, and discharges itself into the Onombrna.

ARBICA, a town of Spain, in Navarre, ten leagues W. N. W. of Pampluma.

ARBIL, in Ancient Geography, a people of Afi, in Ge- drofia, mentioned by Piny (H. N. I. vi. c. 23.), being the same that are placed by Strabo near the mouth of the Indus.

ARBIS, a river of Afi, which ran, according to Piny, between the Ox and Indians, and after watering a town of the same name, fell at a small distance from it into the Indian Ocean.—Afi, the name of a town of Gedrjia, belonging to the Arbhi, and situated on a river of the same name.

ARB, in Geography, a town of France, in the department of the Gironde, and chief place of a canton, in the district of Caflilhe, seventeen miles south-east of Bourdeaux.

ARBITER, in the Civil Law, a judge nominated by the magistrates, or chosen voluntarily by two contending parties, on whom they confer a power, by compromise, of deciding their differences according to law.

The Romans sometimes submitted to a single arbitrator; but ordinarily they chose several, and those always of an uneven number.

In matters wherein the public was concerned, as crimes, marriages, affairs of state, &c. it was not allowed to have recourse to arbiters: nor was it permitted to appeal from an arbitral sentence; the effect of an appeal being to suspend the authority of a jurisdiclion, not of a compact.

The arbitrator, among the Romans, judged in those causes which were called "bono fide," and arbitrary, and was not restricted by any law or form; hence he was called "honorarius." A person chosen by two parties by compromise to determine a difference, without the appointment of the pre- tor, was also called arbitrator, but more properly "compromi- larius."

Among the moderns, there are properly divers kinds of arbiters; some obliged to decide by the rigour of the law; and others are authorized by the contending parties to relax, or give way to natural equity; these are properly called arbi- trators.

The ancient Romans, at their feasts, appointed a perfon to preside, by throwing the dice, whom they called "arbi- ter bibendi," and who directed every thing at his pleasure. Vid. Hor. Od. I. 4. 18. II. 7. 25.

ARBITRARY, in a general sense, that which is not defined or limited by any certain express law or constitution, but is left solely to the judgment and discretion of another. Thus arbitrary punishments denote such as are left by the statute to the discretion of the judges. Arbitrary fines or mulcts are usually called amercements.

The word is formed from arbitrium, will; whence also arbitrator, arbitrator.

ARBITRARY power. See Despotism, Monarchy, &c.

ARBITRATION, or Arbitrage, the referring of a cause or dispute concerning any personal chattels or personal wrong, to the decision of two or more indifferent persons, under the quality and denomination of arbitrators or arbitrators.

If in deciding the controversy, these do not agree, it is usual to add that another person be called in as umpire (imperator, or inpar), to whose determination the cause is thereby referred; or frequently there is only one arbitrator originally appointed. This decision, in any this case, is called an award. Thus the question is actually determined, and the right transferred or settled, as it could have been by the agreement of the parties, or the judgment of a court of justice. But the right of real property cannot pass by a mere award: yet, doubtless, an arbitrator may now award a conveyance or a release of land; and it will be a breach of the arbitration bond to refuse compliance. For, though originally the submission to arbitration required to be by word, or by deed, yet both of these being revocable in their nature, it is now become the practice to enter into mutual bonds, with condition to bind to the award or arbitration of the arbitrators or umpire therein named. And experience having shown the great value of these peaceable and domestic tribunals, especially in settling matters of account and other mercantile transactions, which are difficult and almost impossible to be adjusted on a trial at law; the legislature has now established the use of them, as well in controversies where causes are depending, as in those where an action is brought, enacting by statute 6 & 10 W. III. c. 15., that all merchants and others, who desire to avoid any controversy, suit, or quarrel, for which there is no other remedy but by personal action or suit in equity, may agree, that their submission to the suit to arbitration or amparage shall be made a rule of any of the king's courts of record, and may invert such agreement in their submission, or promise, or condition of the arbitration bond; which agreement being proved upon oath by one of the witnesses thereto, the court shall make a rule that such submission and award shall be conclusive; and, after such rule made, the parties disobeying the award shall be liable to be punished, as for contempt of the court; whereas such award shall be set aside for corruption or other malbehaviour in the arbitrators or umpire, proved on oath to the court, within one term after the award is made.

And, in confederation of this statute, it is now become a considerable part of the business of the inferior courts, to set aside such awards when partially or illegally made; or to enforce their execution when legal, by the same processes of contempt as is awarded for disobedience to those rules and orders which are fixed by the courts themselves. Black. Comm. b. i. vol. iii. p. 16.

The power of arbitrators is to be regulated by the com- promise between the parties, as to what concerns the differ- ences they are to determine; and whatever they decide beyond that is of no effect.

Among the Athenians, any one who submitted his cause to arbitration, was to abide by its sentence. Arbitrators were to swear before verdict was given. If the plaintiff did not appear before such oath, he might be fined; and appeal might be made from arbitrators chosen by lot to other courts of justice. The office of arbitrators was annual, and if they were found guilty of corruption, they were punished with banishment, infamy.

ARBITRATOR, an extraordinary judge or commissioner, in one or more causes between party and party, chosen by their mutual consent.

The civilians make a difference between arbitrator and arbitrator: though both ground their power on the compro- mise of the parties, yet their liberty is divers; for an arbit- rator is tied to proceed and judge according to the forms of law; whereas an arbitrator is permitted wholly to use his own discretion, without solemnity of process, or course of judgment, to hear and accommodate the controversy committed to him; so he be justi arbitrarius boni vii. See Epitopius.
ARBITRIO, in Music, is equivalent to ad libitum, at

fair arbitrio, at your pleasure, ad fair commendo, at your con-

venience. In lefions and folos, and in the solo parts of con-

certos, where all the other parts wait at a pause or close on the

pleASURE of the principal performer, these notices are

given. See Ad libitum.

ARBoga, or ARBOGEN, in Geography, a town of

Sweden, in the province of Västmanland, situate on the

river Stora. Within a quarter of a mile is the canal of Ar-

boga, begun in the reign of Christian, widened and deep-

ened by Charles XII, and finished under the reign of his son

Charles XII. which joins the lake of Hedemar with that of

Medan. In this place a syruo was held in 1297, under

Nicholas, archbishop of Upps.

ARBouis, a town of France, in the department of Jura,

and principal town of the district of Poligny, celebrated for

the excellent wine made in its environs. The place contains

6414, and the canton 12,385 inhabitants; the territory in-

cludes 150 kilometres and 14 communes. N. lat. 46° 55',

E. long. 5° 30'.

ARBON, a town of Switzerland, in the Turgov, situate

on the south side of the lake of Constance. The inhabi-

tants are chiefly Protestants. N. lat. 47° 35', E. long. 9°

30'.

ARBOR, in Botany, Gardening,  &c. signifies a tree or

perennial plant that has the property of ruling with a simple

woody and durable stem or trunk to a considerable height

and thickness. These last circumstances, in some mea-

sure, form a distinction between trees and shrubs, which last

are supposed to be of a smaller growth, and to have generally

several stems proceeding from the root, or the same stem di-

viding near to it, into different smaller ones; and also from

herbaceous plants, whose stems are soft, often succulent, and

mostly rife in spring, and perish in autumn. This is not,

however, general.

It has, indeed, been observed by Linneaus, that this dis-

tinction between trees and shrubs is by no means universally

observed. Nature, says he, has put no limits between trees

and shrubs; for to say that trees are taller than shrubs is,

in fact, saying nothing; unless a certain inmutable standard

was previously established. Besides, every thing respecting

dimensions is so variable in its nature, and depends so much

upon the difference of climate, soil, and culture, that no

certain standard or boundary can, with propriety, be fixed

between them, since the same plant, in different countries,

often attains very different growths: thus the arbutus and

laurel, in warm climates, grow to large trees; while in this

country, they are generally considered as shrubs. See

Frutex.

ARBOR Camphorifera. See Laurus.

ARBOR cyprium. See Hura.

ARBOR judae. See Cercis.

ARBOR, in Chemistry.—ARBOR philippica is a name

common to several metallic crystalizations; thus called

from their ramifications resembling a tree.

ARBOR Diane.—ARBOR mineralis philippica.—Arbre de

Diane.—Dianenbaum, Sibberbaum. It is the property of sil-

ver, lead, and tin, when combined with an acid into a read-

dily solvable salt, to be easily separable in the reguline flate

from such acid by the superior affinity of zinc, mercury,

&c.; and while precipitating, to arrange themselves in a

branching filamentous mass. Hence they were called by

the ancient chemists arbores, trees. Silver being denoted in

alchemical language by the moon, Luna, or Diane, the term

Arbor Diææ means therefore metallic silver brought by art

into an arborescent form. As this is a very beautiful pre-

paration, and susceptible of great varieties of figure, a mul-

titude of receipts are to be found in different writers, all of

which, however, may be reduced to two. The first consists

in the decomposition of a solution of pure nitrat of silver

by mercury: the second varies from the first in the silver

being amalgamated with mercury previously to solution in

nitrous acid. The latter of these methods is the most ancient,

being described by Homburg (Mem. de l'Acad. de Paris, 1692)
in the following terms: " Make an amalgam without heat of

four drams of silver filings, or still better of silver leaf,

and of two drams of mercury (see MERCURY, Allloy of);-

disolve this amalgam in four ounces or a sufficient quantity

of nitrous acid, pure and moderately strong; dilute this

solution with about a pint and a half of distilled water, shake

the mixture, and preserve it in a bottle with a glass stopper.

When this preparation is to be used, an ounce of it is to be

put into a vial together with about the size of a pea of an

amalgam of gold or silver about as soft as butter, and the

whole is to remain at rest: soon afterwards small filaments

will be seen issuing from the amalgam, which quickly

incr ease, branch out on both sides, and take the form of

sheds.

" The simpler method appears to have been first mentioned

by Lemery (Cours de Chimie, 1726). He advises to dis-

solve an ounce of fine silver in a sufficient quantity of pure

nitrous acid, and afterwards to mix the solution in a flask

with about twenty ounces of distilled water: add to this

solution 20 grains of mercury, and let the whole remain

at rest. In about forty days a kind of silver tree will be

formed upon the mercury with branches resembling vege-

table ramifications. The two essential conditions for the

complete success of this experiment are, first, that the nitrat of

silver should be free from any excess of acid; and secondly,

that the silver should have a firm base to adhere to as soon as

it begins to be precipitated. To ensure the first, it is ad visable to

proportion the acid to the silver, that a very minute portion

be left undissolved, and then by concentrating the solution to

disperse it to crystallize. The crystals thus obtained, be-

ing dried on blotting paper, should be dissolved in distilled

water, the proportions of which may be varied at pleasure,

provided the solution is not, on the one hand, so strong as
to deposit crystals by staking, and, on the other hand, so

dilute as to require many days before the experiment is com-

plered: from five to twelve times as much water as nitrat of
silver is upon the whole the most convenient proportion.

The fibres of the precipitate will be crowded and short,

when the process is brought about rapidly; but long and

branched, if a greater time is allowed.

The mercury that is added to effect the precipitation

should be mixed with silver so as to destroy its fluidity; for

when pure mercury is poured in, the first portions of silver

that are deposited unite with and dissolve in the mercury till

it is thus brought to a proper consistence.

The tree or arborealistent precipitate thus obtained is an

amalgam of silver, the proportions of which appear subject
to some variations. For the theory of this and similar phe-

nomena, see Precipitation, and Metallic Precipitates.

Maquer's Chemisches Worterbuch, art. Dianenbaum. En-

cyclopedia Method, art. Arbres de Diane, &c.

ARBOR plumis, is the result of a beautiful vegetation of

lead. For producing it, two drams of acetate of lead are

dissolved in fix ounces of distilled water; the filtered solu-

tion is poured into a cylindrical glass, and a thin roll of

zinc being hung in it, the whole is left standing at rest.

The lead precipitates, adhering to the zinc in metallic leaves,


ARBOR Genalogia, tree of confangunity, signifies a li-

4 H ence
neage drawn out under the figure or resemblance of root, flock, branches, &c.

**ARB**

*Arbor Porphyriaea*, among the schoolsmen, denotes a scale of beings; or a figure consisting of three rows or columns of words; the middlemost whereof contains the series of genera and species, and bears some analogy to the trunk; and the extremes, containing the differences, to the branches of a tree.

**SUBSTANCE**

Thinking

**BODY**

Extended

Inanimate

Rational

**ANIMAL**

Animale

**MAN**

That

**PLATO**

The *arbor porphyriaea* is otherwise called *scala praedicamentalis*.

**ARB Vitas**, in Botany. See *Thuja*.

**ARB** is also figuratively used in *Mechanics*, for the principal part of a machine, which serves to sustain the mill.—It is also used for a spindle, or axis, wherein a machine turns; thus, *arbore* of a crane, a mill, windmill, &c.

**ARBorea**, in Entomology, a species of *Podylia* described by Scopoli and others. It inhabits trees in Europe; is oblong and black; legs and fork white. *Linnæus. Gmelin*.

**ARBorea**, in Ornithology, a species of *Anas*, that inhabits Jamaica, and is called by Ray, Sloane, and Edwards, the black-billed whistling duck. It is brown; the head slightly crested; and the abdomen spotted with black and white. *Gmelin*. This is also *Anas flustris Jamaicensis* of Brönn; *Canard flustris de la Jamaïque* of Buffon Pl. Enl.; and *flustris* a beec noc. *Nat. Hist. Oil.* of the same author.

The most remarkable circumstances of this duck are, that it builds its nest in trees, and makes a whistling noise. It is supposed to frequent Carolina in winter, at least one of the same name is said to be found on those coasts at that time by Lawton and Catchby. A bird of this kind is in the British Museum, and is called the Opano Duck, which is the name it bears at Guiana.

In size it is less than the Mallard, and stands high upon its legs; the neck is also long and slender. The bill is black; the irises hazel; crown of the head dusky, somewhat erethed behind, and of a rufous brown; hind part of the neck brown; back and feapulars the same, but the feathers margined with rufous; rump and upper tail-coverts darker; sides of the head and throat white; fore-part of the neck white spotted with black; the breast pale rufous spotted also with black; belly, thighs, and vent much like the forepart of the neck, but the spots are smaller and most numerous on the sides; the wing-coverts rufous spotted with black; quills and tail dusky; legs lead-colour; claws black.

**ARBorea**, a species of the *Alauda* genus. See *Alauda*.

**ARBorea**, in Zoology, a species of *Rana*, called the tree frog, and thus defined by Gmelin: body granulated beneath, and the feet cleft. *Linnaeus* describes it as having the body smooth; the underpart beft with contiguous tiberculations; the feet cleft, and the toes terminated in orbicular dilated tips. Gmelin enumerates eight supposed varieties of this species, which are as follows:

- *Hyla viridis* of Laurent. Amph.—*Rana pedibus fistis*, palmis tetradactylis, plantis pentadactylis, geniculis tubibus tuberoöis. *Ameen. Acad.*. p. 135. (Frog with eftf feet, four toes on the anterior, and five on the posterior feet; and the knees warded beneath.)
- *Hyla viridis*, linea flava unioque texta. Laurent. and Catchby. (Green, with a bright yellow line on each side.)
- *Rana americana rubra*. Sch. Mul. 2. t. 7e. f. 4.
- *Hyla viridis* fusa. Laurent. Amph. p. 34. n. 29.

Dr. Shaw gives a new specific character to this creature: *Rana arborœa*; viridis, fistis albidis. linea laterali nigranti, abdomen granulato, pedibus fistis. (Green frog, whitish beneath, with black lateral line, granulated abdomen, and unwedged feet.

"In the beauty of its colours, as well as in the elegance of its form, and the agility of its movements, the tree frog exceeds every other European species. It is a native of France, Germany, Italy, and many other European regions, but is not found in the British islands. Its principal residence, during the summer months, is on the upper parts of trees, where it wanders among the foliage in quest of insects, it catches with extreme celerity, flying softly towards its prey in the manner of a cat towards a mouse, and when at a proper distance seizing it with a sudden springing, frequently of more than a foot in height. It often pursues itself by its feet or abdomen to the under parts of the leaves, thus continuing concealed beneath their shade. Its fize is smaller than any other European frog, except the fire frog. Its colour, on the upper parts, is green, more or less bright in different individuals; the abdomen is whitish, and marked by numerous granules; the under surface of the limbs is reddish; and the body is marked on each side by a longitudinal blackish or violet-coloured streak, separating the green of the under parts from the white colour of the lower; the inferior edge of this dark lateral stripe is tinged with yellow. The body is smooth above, and moderately short or plump; the hind legs are very long and slender; the fore feet have four, and the hind five toes, all which terminate in rounded, flat, and dilated tips, the under surface of which being soft and glutinous, enables the animal to hang with perfect security from the leaves of trees, &c. The scent of the abdomen is also admirably calculated by nature for this peculiar power of adhesion, being covered with small granular granules in such a manner as to detain closely even to the most polished surface; and the animal can adhere at pleasure to that of glass, in whatever position or inclination it be placed, by merely pressing itself against it." Dr. Shaw, Zoö. &c.

It is further remarked by this and other authors, that though the tree frog inhabits the woods during the summer months, on the approach of winter it retires to the water, where it conceals itself in the soft mud or banks, and remains in a state of torpidity till the spring; when it again emerges; and, like the reptile of this genus, deposits its spawn in the water at that season. The male, at this period, inflates its orbicular gular pouch in a furprizing manner, and emits a loud and sharp croak, which may be heard at a vast distance; they make the same noise on the approach of rain while they live among the trees, and may be considered, in some measure, as a kind of living barometers, more especially the males, which, if kept in glasses and fopplied with proper food, will afford an infallible preage of the changes of weather." In the German Ephemerides, Linnæus, *Sylloge*. Curatorum
Curiosiform, we meet with an account of one which was kept in this manner for the space of seven years.

ARBOROUS, ARBOREUS, is applied by some naturalists to such excercices, funguses, inoffensive parasites, as grow on trees; in contradistinction to such as grow on the ground; such are the heliobases and sporae.

ARBORESCENCENS, in Natural History, a species of DOnis (Vernicis Molinae), that inhabits the Norway forests. The feelers are ramose; back gibbosus, and fact with protuberances. Mill. Zool. Ginnch.

ARBORESCENT, a term used to denote any thing that sprouts or grows up in form of a tree, which gradually becomes firm and woody; and arboreus is that which resembles a tree, having a permanent woody stem.

Botanists speak of arborecent shrubs and plants, &c. Mineralists treat of arborecent metals, arborecent silver, arborecent iron, arborecent flints, &c. The fungus minos is ranked by some in the class of arborecent floors; the chemists produce arborecent crystallizations, which they call philosophical trees. Phil. Trans. N° 198, N° 311, and N° 129.

Zoologists give influences of arborecent animals, particularly fishes.

The arborecent eel, delta arborecent, a species of Asterias, is one of the curiosities of nature found in several cabinets of natural rarities.

ARBORETI, in Entomology, a species of Curculio, that inhabits Cayenne. It is of a cinerous colour; thighs of the anterior legs toothed; wing-cages frillfled with punctures. Fabr. Ginnch.

ARBOREUM, in Natural History, a species of Alcyonum (Vermes Zoophyta), found in the Norway and Indian fens. The item is arborecent, with obtuse branches and papillary pores. This is Lithoxylon Norvegicum of Mol. Telfin.; Alcyonum ramosum, poris papilarius in tubera lateralia terminalique congesti of Pallas; Arbucula marinai coralloides of Cufinius; Planta marina coraloides rubra, J. Boub.; and Accaroba gubba-guber. J. Accarbaa bouzy, Amblyonythus Hapalop, Rumphius.

ARBOREUM, in Entomology, a species of Cinex described by Degeer. Above it is brown-green, beneath yellowish; a tralverse yellow line across the thorax; wing-cages bordered with red; tail of the same colour, and biidentate. This is a small insect, being only five lines in length, and lives in trees. Ginnch.

ARBORIBONZES, in Modern History, priests of Japan, who live an erratic life, and subsist on fish. They dwell in caverns, and cover their heads with bonnets made of the bark of trees.

ARBORIS PECTEN. See Pecten.

ARBORIST, ARBORISTA, a person skilled in trees, their forms, nature, &c.

Arborist is an appellation of less extent than botanist.

ARBOR SCIENTIFICA, a general distribution or scheme of science or knowledge.

ARBUC, in Geography, a town of Arabia, 116 miles northeast of Mecca.

ARBUCAVE, a town of France, in the department of Landes; four leagues south-east of St. Sever, and 45° E. N. E. of Orthez.

ARBOURS, in Gardening, are small compartments formed with various sorts of trees and shrubs, in such order as to include a certain space, and make a kind of reeds or shady retreat for the hot summer months. They were formerly held in much higher estimation than at present, and were commonly formed of evergreens, as yews, planted very close, the fides trained crect fix, eight, or ten feet high, and the tops formed like vaults or trained archways, over arched frames or lattice-work of wood or iron; having arched openings or arcades formed on the sides, the whole being closed annually to keep them in due order, which in many cases appeared very ornamental, according to the ancient style of gardening. They were also frequently formed of deciduous trees, particularly the elm, and sometimes with the horn-beam, beech, and lime, which were conically shorn every summer. The forms of both the ever-green and deciduous kinds, were either square, hexagonal, octagonal, or round, and their dimensions generally from ten to fifteen feet in width and height; the tops were mowed made either pavilion, turret, or dome-shaped, and sometimes terminated by a globe, pyramid, or other figure, formed of the extreme branches.

The authors of the "Universal Gardener" observe, that covered arbours or bowers may be formed very quickly, even in one season, with several sorts of shrubby herbaceous climbing plants; some of which will advance fifteen or twenty feet in one summer. It is likewise added, that they should, if possible, be erected upon a somewhat rising ground, for the greater advantage of free air, and to enjoy the prospect of the garden and adjacent country.

They are also sometimes formed in the heads of single large trees, particularly elms, where the trunks have divided at the height of ten or twelve feet, into several leffer spreading limbs, so as to admit of erecting a small platform between them, cutting down the large boughs, and training the phable branches archways over lattice-work, till those on each side meet; then clipping the fides annually, the tops may either be cut, or permitted to grow up, or the whole suffer to advance in a natural growth. They may likewise be formed on the ground in this manner: plant some of the tallest-growing flowering shrubs round the inside, to form the dimensions of the arbour; then, on the outside of thefe, others of somewhat leffer growth; so continue three or four ranges, diminishing gradually in stature from the arbour outwardly, permitting the whole to take their natural growth; so that at a distance it may assume the appearance of one of the common shrubbery clumps.

The bottoms of them when on the ground, should be well gravelled, and garden chairs placed in them during the summer.


ARBRE DES, in Geography, an island in the north part of lake Michigan in Upper Canada. N. lat. 45° 25'. W. long. 85° 18'.

ARBRESLE, L', a town of France, in the department of the Rhone and Loire, and chief place of a canton in the district of Lyon; nine miles north-west of Lyons. The place contains 8,71 and the canton 11,997 inhabitants; the territory includes 170 kilometres, and 17 communies.

ARBOETH. See ABERBROCHIE.

ARBUCLE, JAMES, M. A. in Biography, was born at Glasgow, in 1709, and educated in the university of that city, and afterwards kept an academy in the north of Ireland. His poems were published in one volume, 12mo.; but his translation of Virgil, which he undertook, was never finished. He was a person of fine talents, and much esteemed by the learned in general. He died in 1754. Biog. Diet.

ARBUCULA is used by Bradley to denote a little, or dwarf-tree, above the rank of shrubs, but below that of trees, such e. gr. as the elder.

ARBUCULA marina coralloides alta. Valent. Ind. 4. 4 H 2. 1. 55.
ARB

1. 52. f. D. D. This is \textit{Madderora maruicta} of Gmel.

\textbf{ARBUSTIVA}, in \textit{Botany}, an order of plants in the Fragments Methodi Naturae of Linnæus.

\textbf{ARBUSTORUM}, in \textit{Conchology}, a species of \textit{Helix}; a land snail found in hedges and thistles in Europe. This shell may be better characterized in the words of Da Cola than Linnæus; for the latter neglects to include in its specific character the single spiral line which is invariably found upon this species. It is thus defined by Da Cola; the shell somewhat umbilicated, spotted, with a single narrow spiral band along the middle of the breadth of whorls.—\textit{Tellus umbilicata convexa acuminata; aperture tubii-bacularii bimarginata; antecuriis longa}. \textit{Linn.}, \textit{Sp.} SW.—The shell is brown with yellow lines, or yellowish with brown lines, in little irregular dashes, and the spiral streak is dark. Vide Donov. Brit. Shells.

\textbf{ARBUSTORUM}, in \textit{Entomology}, a species of \textit{Musca}, \textit{(Serphus, Fabr.)} that inhabits Europe, and lives in trees. The thorax is grey; abdomen black, except the front joint and sides of the tergum, which are rufous. \textit{Linnæus, Gmelin}.

\textbf{ARBUSTUM} implies a number or multitude of trees planted for the sake of the fruit.

The word was more peculiarly applied to a place planted with trees for fattening vines to, which are hence called by Columella, \textit{arbileuma}.

\textbf{ARBUSTUM} is sometimes also used to denote an orchard or field wherein trees are planted at such a distance, that there is room for ploughing and growing corn between them.

\textbf{ARBUTELLA}, in \textit{Entomology}, a species of \textit{Phalaena} \textit{(Tinea Linn.)}. The wings are rufous, with streaks of silver, the middle ones bïd. \textit{Fabricius}.

\textbf{ARBUTHNOT, ALEXANDER}, in \textit{Biography}, an eminent Scots divine, was the son of the baron of Arbuthnot, and born in the year 1538. Having studied the languages and philosophy in the university of Aberdeen, and civil law under Cujacius at Bourges in France, he took ecclesiastical orders, and became a zealous advocate and promoter of the reformation. In 1568, he affixed as a member of the general assembly at Edinburgh; and by this assembly he was entrusted with the charge of revising a book, intitled, "The Fall of the Roman Church," which had given great offence, and which incurred the censure of the assembly, chiefly on account of the adhesion contained in it, "that the king was the supreme head of the church." On this occasion the assembly, in direct opposition to the principles of the reformation, to which they professed a zealous attachment, issued an order that no book should be published for the future, till it should be licensed by commissioners of their own appointment. In the following year, Mr. Arbuthnot was advanced to the office of principal of the king's college at Aberdeen. In 1572, he was a member of the general assembly held at St. Andrews, which strenuously opposed a scheme of church government called "the book of policy," and which was formed by some ratcmen for the purpose of restoring the old tithes in the church, and retaining among themselves all the temporalities annexed to them.

In the general assemblies held at Edinburgh in 1573 and 1577, Mr. Arbuthnot was moderator; and he seems to have been constantly employed, on the part of the church of Scotland, for conducting the controversy concerning the plan of ecclesiastical jurisdiction to be adopted in this church. By the course he pursued in this business, and also by his publication of Buchanan's History of Scotland, he gave offence to James VI.; and a royal order was issued, forbidding him to absent himself from his college at Aberdeen. The clergy, who were likely to be thus de-prived of his important and useful services, remonstrated; but the king was inflexible, and the clergy submitted. By this persecution Arbuthnot's health and spirits were affected; and in the next year, viz. 1583, he sank into a decline, and died. Arbuthnot appears to have possessed a degree of good sense and moderation, which eminently qualified him for the conduct of public business. Possessed of a considerate share of learning, he patronized and promoted it, and contributed to revive in Scotland a taste for polite literature. The only literary work which he has left is a learned and elegant treatise in Latin, intitled, "Orationes de origine et dignitate juris," printed at Edinburgh, in 1572, in 4to. Brit. Hist.

\textbf{ARBUTHNOT, JOHN, M.D.} rot lefs celebrated for his wit than for his learning, was son of an episcopal clergyman in Scotland, and born at Arbuthnot, near Montrose, soon after the restoration. He received his education at the university of Aberdeen, where he took his degree of Doctor of Medicine. He then came to London, and taught mathematics, in which he was well skilled. In 1657, he published "An Examination of Dr. Woodward's "Account of the Deluge." This first brought him into public notice, and the reputation thence acquired was increased by his "Treatise on the Usefulness of Mathematical Learning," which soon followed. In 1704, he communicated a paper to the Royal Society, which is published in their Transactions for that year, "On the conformability observed in the births of both sexes." Though there is a small disparity, the males exceeding the females by about one in twenty, yet as the males are engaged in occupations of greater hazard and danger, he supposes their number to be nearly equal, at an adult age. Whence he concluded, "that polygamy is contrary to the law of nature and justice, and to the propagation of the human race:" an argument affording a complete answer to the doctrine contained in the Thalysphora, a publication by the late Mr. Madison. On the credit of this paper he was made fellow of the Royal Society, and obtained a more intimate connection with the principal literary characters in the country. Being soon after called to attend prince George of Denmark, who was taken ill at Epsom, where the Doctor happened to be at the time, his success in relieving him to health brought him into favour with queen Anne; and in 1709, Dr. Hames being induced, he was made her physician in ordinary, and admitted Fellow of the Royal College of Physicians. This would have attended of course with an increase of professional fame and employment; but it does not appear he was ever popular as a physician, or had much general practice, as on the death of queen Anne, in 1714, he found himself so much neglected, as to have leisure to go to Paris. On his return he thanks Mr. Pope for "taking notice of a poor old diffireted country:" and tells him, "that his friends shall find the fame welcome at Martin's Office in Dover-street, they had met at his house in St. James's, and that he can ill afford to give them half a pint of claret." His fondness for the conversation of Pope, Swift, Gay, and the other wits of the time, and their affectionate attachment to him, although contributing to his pleasures, as most congenial to his disposition, was probably the real cause of the little estimation he was in as a physician, except among his friends. For though Apollo is called the father of medicine as well as of verse, yet those who, addicted themselves to him in his latter capacity, rarely attain eminence in the first. This was afterwards exemplified in the fate of Armbrong and Alexander, whose fame as physicians decreased in proportion to their increasing celebrity as poets.

Arbuthnot had been for some time engaged with Pope
and Swift in writing the "Memoirs of Martinus Scriblerus," intended as a general satire on the abuses in human learning; but which was never completed. It was in allusion to this, that he called his house in Dorrinstreet Martin's Office (see his letter to Pope in 1714), which shows also that he had no inconsiderable share in that exquisitely witty production. "The life of that solemn and absurd pedant, Dr. Scriblerus" Watson says (Introduction to the Memoirs), "of which Johnson speaks too contemptuously, is the only true and genuine imitation we have in our language of the serious and pompous manner of Cervantes." Besides the large share Arbuthnot contributed to these memoirs, he is upon good authority suppos'd to have written "The history of John Bull," "A Treatise on the Coaling of the Ancients," and "The Art of Political Lying." There is also a philosophical poem written by him, remarkable for its philosophical sentiment, in Dodgley's collection the title "Know thyself," but his principal work is, "Tables of ancient Coins, Weights, and Measures," consisting of several dissertations on these subjects, which he collected together and published in 1790. In 1727; they are still held in esteem. In 1732, now in the decline of life, he published a treatise "On the Choice of Aliments," and in the following year, "On the effect of Air on the Body according to ancient and modern writers, on the doctrine of Bacchus, the prevailing flem of the time. Among his fatichical pieces should be mentioned his "Epitaph on Charters," a noted usher of the time. "Here continues to rot, &c." It is written with uncommon pertinacity, but not more than the subject demanded. In almost all his fatichical poems there is a good-humoured vein of pietas, which confirms the character given of him by Swift to a lady who defined his opinion of him: "he has more wit than all our race, and his humanity is equal to his wit." Although they are strongly tinged with party, yet they are generally free from the gall and rancour that too often afflicts party writings. If indeed the "Memoir of the six days preceding the death of a late Right Reverend," (meaning Bishop Burnet) he has not, in this instance, he acquitted of skilling his personal dislike to get the better of his humanity. Dr. Arbuthnot was also a skilful musician; and sir J. Hawkins mentions an anthem, and a burlesque song of his composition. (Hist. Muf. vol. v. p. 126.) The two volumes published in 1720. In 1751, and entitled, "The Miscellaneous Works of the late Dr. Arbuthnot," contain some of his genuine productions; but as for the greater part of them, they are George Arbuthnot, Esq., upon whose judgment and probity we may depend, says that they were not written by his father. He had been long afflicted with an alman, to which a drop of wine was now added. With a view of obtaining relief under this accumulated distress, for he did not, he told his friends, expect a cure, he removed to Hampstead, a village in the neighbourhood of London; but, finding little advantage from change of situation, he soon returned to his house in town, where he died Feb. 27, 1755; and supposing him to have been thirty, when his "Examination of Woodward's Account of the Deluge" appeared, in the 68th year of his age. Dr. Arbuthnot paid his days amidst the endurances of domestic life, and the affliction of his friends; and bore, with resignation and cheerfulness, the afflictions that fell to his lot. His literary associates, by whom he was beloved, have recorded their mutual friendship, and dedicated to him an epistle, called "A Prologue to the Satires!" and Swift feelingly laments, in one of his poems, that he is "Far from his kind Arbuthnot's aid, / Who knows his art, but not his trade."

During his last illness, his senility supported by habitual piety, never deserted him; and these qualities, with an ardent love of virtue and disdain of meaner and vice, are beautifully displayed in his last letters.


Species. 1. A. humilis, common strawberry-tree: trim arboreous: leaves oblong-lanceolate; panicles smooth, nodding. This tree rises to the height of twenty or thirty feet and usually puts out branches very near the ground. It is in conflagrant verdure: for, during the whole winter, it retains its leaves till pushed off by those which appear in the spring. In the months of October and November, the arbutus makes a very beautiful appearance, as, at this time, its fresh flowers and fruit of the preceding year are in their utmost perfection: hence it becomes a very desirable tenant in shrubberies, producing a pleasing contrast with most other plants, whose season of beauty is past. Mr. Aiton enumerates the following varieties, viz. a. Common white-flowered strawberry-tree. B Red-flowered strawberry-tree. C Double-flowered strawberry-tree. Besides these varieties the nurseries make others founded upon the shape and size of the leaves. It is a native of the Isthmus of Europe and of Asia. This arbutus, we are told, is also a native of some parts of Ireland, especially about the lake Killarney. 2. A. laurifolia, laurel-leaved strawberry-tree: stem arboreous: leaves oblong, acuminate, sharply serrate, smooth; racemes axillary, long, ranked, pellate, foliaceous. This tree is very like the common arbutus, but differs in its sharp cipitate ferratures, and its axillary, very simple racemes, shorter than the leaves, with the flowers all directed the same way. A native of North America. 3. A. arborea, oriental strawberry-tree: stem arboreous, leaves ovate, entire, and ferrate; panicles pubescent, erect. This also has some resemblance to the common arbutus, but the bark is not rough; some of the leaves are not ferrate; the panicle is viscid. It grows to a middle-sized tree, with large smooth leaves. The flowers resemble those of the first species, but grow more thinly on the branches. The fruit is oval, and the seeds flat. It grows abundantly in the EaB, about Magnesia. Cultivated in 1724, by Dr. Sheard, at Eitham. 4. A. ferruginea, long-flowered strawberry-tree: stem arboreous; leaves oblong, obtuse, smooth, entire; racemes terminal, Branches singular, smooth; leaves alternate, petiolar; racemes axillary, solitary, terminating the branches; flowers remote, nodding, longer than those of the other species. Found in America by Mitch. 5. A. macrantha, pointed-leaved strawberry-tree; stem thorny; leaves alternate, obviate, ferrate, pointed: pedicels axillary, one-flowered. This is a very thorn shrub.
Leaves flat, stiff, callous at the edge, with four<br>petioles on each side, on very short pedicels; pedicelles<br>short, one-flowered. Found in Terra del Fuego, by Back.<br>6 A. pamult, dwarf strawberry-tree; stems diffuse; leaves<br>alternate, dilated, oblong, entire; flowers solitary, solitary.<br>A few shrubs, with leaves like those of *Eugenia* trons, very smooth above, keeled beneath. It is a native of the same country<br>as the fifth species, 7 A. Bicliei, Acanth. strawberry-tree; stems procumbent; leaves ovate, suberect; flowers<br>glandular, in small blood-red calyx, about twice the<br>size and, when ripe, the colour of a flower. It grows in alpine<br>situations in the northern parts of Europe; and with us, on<br>many of the highland mountains of Scotland. 9 A. *novi<br>zebi*, bear-herb or trailing arbutus; stems procumbent;<br>leaves entire. Branches trailing upon the ground to the<br>extent of two or three feet round the root; leaves like those<br>of the preceding species, firm and rigid like those of box;<br>flowers of a flesh-colour, in small clusters at the ends of the<br>branches, upon short red pedicelles; berries, when ripe, are<br>red, and of the size of a holly-berry. Common in many<br>mountainous parts of the continent, and in the north of<br>England and Scotland. Eng. Bot. 714. W. Med. Bot. 70.<br>These leaves of this plant, about the middle of the last<br>century, acquired great celebrity, not only for their efficacy<br>in gravelly complaints, but also for the great esteem for their<br>ornamental beauty. They are usually given in powder from a<br>ferule to a dram, two or three times a day. This plant has<br>been used in tanning leather, and also in dyeing an ash<br>colour. 10 A. *myrsinfolia*, thyme-leaved arbutus. Aiton.<br>Hort. Kew; stems procumbent; leaves oval, acute, ob-<br>seously ferrata, trigone underneath; flowers axillary, eight-<br>flamened. This has the structure of the *Saxicum* erectum, or<br>craberry, but all the parts are larger. The stem is im<br>briate, with bristle-shaped scales. A native of North<br>America, in swamps, and extremely abundant there. The<br>berries are brought to market at Philadelphia late in<br>autumn, and used for tarts and other kinds of pastry. Con<br>siderable quantities of them are exported to Europe and<br>the West Indies. They are much used by our pastry-cooks<br>in London, though thought to be inferior to the cranberries<br>of British growth. The plant was introduced by Dr. Fothergill<br>in 1776.<br>A. *novi zebi*, trailing. See *Eugenia*.<br>A. *arbutus*, in *Ornamental Gardening*, is applied to a genus<br>of plants, the different species of which supply the finest<br>evergreens for the principal situations in shrubberies and<br>pleasure-grounds. They are four as may be set out in<br>the open ground or in pots, but in whatever mode of<br>planting it is designed to employ them, they should be<br>placed in so detached a manner, as to appear conspicuous<br>at all times, and be permitted to take their own natural<br>growth. The best season for transplanting all sorts of tide<br>shrub in is in the end of September or October and begin<br>ning of November, or in March and April.<br>The propagation of the different species is effected most<br>commonly by seed; they will, however, sometimes grow by<br>layers and cuttings, though in the latter mode rather more<br>reliably; but the seed grows freely, from which the hand<br>somest plants are frequently obtained. To continue the<br>double-flowered and scarlet kinds with certainty, it<br>must be done either by layers, cuttings, grafting, or in<br>arching, as these varieties will not retain their difference if<br>continued from seed. From the seed of either the common<br>oval or round-framed kinds some of both sorts may be expected;<br>but that of the former is rather to be preferred for forcing.<br>The berries containing the seed may be had of the nursery<br>men and seedmen in October, November, and Spring; and<br>the seeds may either be sown in pots in autumn, and shel<br>tered in a frame all winter, or be preserved in dry land until<br>March, and then sown in pots of light dry earth, and cov<br>ered about a quarter of an inch deep; if the pots are<br>then plunged into a hot-bed, it will greatly forward the<br>germination of the seed, that the plants will rise in a month<br>or six weeks; when they must have plenty of air admitted to<br>them, moderate waterings, and be injured by degrees to<br>the full air in summer, at which season the pots should<br>be plunged into the common ground until October, and<br>then be set in a green-house or frame, to have shelter from<br>the frost, till March, at which time it is advisable to trans<br>plant the seedlings singly into small pots, which if directly<br>plunged into a flender hot-bed, shielded and shaded far<br>onally with mats, giving moderate waterings, they will<br>quickly take root, when the pots may be plunged into a bed<br>of common earth in a sheltered place, to remain two or<br>three years, indulging the plants with larger pots and pro<brtection from severe frosts, till they are two or three feet<br>high; then transplanting them with balls of earth about<br>their roots into the full ground.<br>Propagate them by layers, the young shoots must be<br>employed, otherwise they rarely emit roots in less than two<br>years. Cuttings will send out roots by the aid of heat;<br>procumbent. To this view plant a number of the short young shoots in<br>pots in spring and summer, and plunge them into a sub<br>stantial hot-bed of tan and dung.<br>Inarching or grafting is performed in the usual way upon<br>roots of any of the varieties. See Inarching, and In<br>arching.<br>A. *archi*, Arch, or Ark, formed of argus, a bow. See<br>Arch and Ark.<br>A. *ark*, in *Biography*, called also "the Maid of<br>Orleans," an extraordinary heroine, was the daughter of a<br>peasant of Domremi, near Vaucouleurs, on the borders of<br>Lorraine, and born about the beginning of the 15th century.<br>At the age of twenty-seven years, she was servant in a small<br>inn, where she was accustomed to tend horses, and to per<br>form other menial offices which commonly fall to the share of<br>men-servants. About this time King Charles VII. was reduced to<br>the most distressed condition by the English; but the siege<br>of Orleans, which was bravely defended by the garrison and<br>inhabitants, in some measure retarded their progress. Joan par<br>took of the feelings of sympathy with the besieged, that very<br>generally prevailed, and determined to make some move in<br>relieving her sovereign in its present distresses. Whilst she<br>was indulging these feelings, her companion led her to fancy<br>that she was visioned and heard voices exhorting her to re<br>establish the throne of France, and to expel the foreign in<br>vaders.
vaders. Under the strong impulse of 

inspiration, she obtained admission to Baudricourt, the 
governor of Vaucouleurs, who after being informed of her 
inspiration and intentions, treated her for some time with 

neglect; but, in consequence of her renewed and importun

ate solicitations, he gave orders that she should be con-
ducted to the French court, which then resided at Chinchon.
It is pretended that Joan, immediately on her admittance, 
knew the king, though she had never seen his face before, and 

though he purposely kept himself in the crowd of court-
tiers, and hid from every thing in his apparel that might 

seem to distinguish him; and that she offered, in the name 
of the supreme creator, to raise the siege of Orleans, and to 

conduct him to Rheims to be there crowned and anointed.
In order to remove his doubts of her mission, it is said, that 

she disclosed a secret, known only to herself, and which the 

milk had derived from heavenly inspiration. She also 
demanded, as the instrument of her future victories, a par-
cular sword which was kept in the church of St. Catha-
nine of Foribus, and which, though she had never seen it, 

she described by all its marks, and by the place in which it 

had long lain neglected. Her intrepid and determined mode 
of address excited attention, and gained confidence; and she 

was referred to matrons for proofs of her virginity, and to 
doctors of the church for evidence of her inspiration; their 
report being favourable, she was sent to the parliament at 

Poitiers; but they, considering her as insane, demanded 
from her a miracle. Her reply was, that she would soon 

exhibit one at Orleans. Accordingly she was at length 
completely armed, mounted on horseback in the presence of 

the multitude, and sent amidst the loudest acclamations to 
join the army defined to the relief of Orleans. Upon 
joining the army, consisting of 10,000 men, the ordered all 
the folders to confide themselves before they set out on the 
enterprise; she bated from the camp all women of bad 
fame; she displayed in her hands a consecrated banner, 
representing the Supreme Being as grasping the globe of 

earth, and surrounded with flower de dieces; and for this 
communicating to the folders a great degree of that enthu-
siasm by which she herself was actuated, she advanced to-
wards Orleans. The English besiegers were overawed by 
her orders and menace, dictated in the name of the Al-
mighty Creator; and she entered Orleans arrayed in her mi-

itary garb, and displaying her consecrated standard, and 
was received by all the inhabitants as a celestial deliverer.
The convoy approached without finding any resistance on the 
part of the besiegers; the waggons and troops passed with 
out interruption between the redoubts of the English; and 
a dead silence and astomishment reigned among them, 
former so elated with victory, and so fierce for the combat. 
Joan, having thus far succeeded, ordered the garrison, at 
the same time encouraging them with the promise of heav-

ily avenged, first, to attack the English redoubts, in which 
measure they were successful; and then to fall upon the 
main body of the English in their entrenchments. In 
one of the later attacks the French were repulsed, but the 
intrepid maid led them back to the charge and overpowered 
the English. In one of these attacks, she was wounded in the neck with an arrow; but after retreating behind the assailants, she put it out with her own hands, 
had the wound quickly dried, and hastened back to head 

the troops, and to plant her victorious banner on the ramp-
arts of the enemy. In consequence of these successes, at-
tended with a glee to the English of more than 6000 men, 
their courage and confidence gave way to amazement and 

dispair. The French, in order to magnify the wonder of all 
these prosperous events, represent the maid, as not only 
active in combat, but as performing the office of general; 
directing the troops, conducting the military operations, 
and faying the deliberations in all the councils of war. But 
whatever the policy of the French court might suggest for 
maintaining this opinion among the multitude, it is much 
more probable that this inexperienced country girl was 
prompted in all her measures by the wiser commanders. 
Having raised the siege of Orleans, Joan now inquired that 
the should proceed to the accomplishment of the second 
part of her promise, which was that of crowning the king at 
Rheims. The king, accompanied by the victorious maid, 
marched at the head of 12,000 men towards Rheims; re-
ceiving the submission of the towns through which he passed 
till at length arriving near Rheims, a deputation met him 
with the keys of the city, and he was admitted into it with 
transport. Here the ceremony of his coronation was per-
formed with the holy oil of Clovis; and the maid florid by 
his side in complete armour, and displayed her faced banner. 
When the ceremony was finished, she threw herself at the 
king's feet, embraced his knees, and with a flood of tears 
she congratulated him on this singular and marvellous event. 
Charles testified his gratitude by ennobling the family of 
Joan, giving it the name of du Lys, probably in allusion to 
the lilies of her banner, and assigning to her a suitable estate 
in land. Having accomplished both the objects which she 
 had promised, the maid of Orleans expressed her wish to 
return to her former condition, and to the occupation and 
course of life which became her sext; but the French gen-

eral Dunois urged her continuance with the army, till the 

English should be completely expelled, and her predictions 
fully accomplished. Overpowered by his advice, she threw 
herself into the town of Compiègne, which was then be-
fiegled by the duke of Burgundy and the English; where, 
on a failing, having twice driven the enemy from their en-
trenchments, and having their number increasing, she or-
dered a retreat; but was defeated by her friends, surround-
ed by the enemy, and taken prisoner by the Burgundians. 
Instead of treating Joan as a prisoner of war, with the cour-
tely and good usage, which, as such, she was entitled, and 
which civilized nations practise towards enemies on occa-
sions of this kind, she was purchased from the captors by the 
regent duke of Bedford, and a criminal prosecution was in-
lstituted against her on the charges of sorcery, impiety, idol-
asty, and magic. The clergy in his interest, and even the 
university of Paris, concurred in the accusation. An 
ecclesiastical commission was held at Rouen for her trial, and 
the maid, clothed in her former military apparel, but loaded 
with irons, was produced before this tribunal. Her trial 
lasted four months; and in the course of that time, many 
captious interrogatories were put to her, which she an-
swered with firmness and dignity. Upon being asked, whether 
she would submit to the church the truth of her pretended vi-
sions, revelations, and intercourse with departed saints? 
She replied, that she would submit them to God, the foun-
dation of truth; and when she was charged with being a he-
retic, and denying the authority of the church, she appealed 
to the pope; but her appeal was rejected. When she was 
asked, why she put her trust in her standard, which had 
been consecrated by magical incantations? She answered, that 
she put her trust in the Supreme Being alone, whose image 
was imprinted upon it. When it was demanded, why she 
was carried in her hand that standard at the dedication and 
coronation of Charles at Rheims? She replied, that the person 
who had shared the danger was entitled to share the glory. 
When she was accused of going to war, she scrupled not to 
declare, that her sole object was to defend the English, and to 
expel the kingdom. In the issue, however, she 
was
was condemned for all the crimes of which she had been accused, aggravated by heresy, her revelations were declared by the council of Tours to be inventions of the devil to seduce the people; and she was sentenced to be delivered over to the Germans and burning. At length her resolution failed her; and through dread of the punishment to which she was sentenced, she declared that she was willing to recant; and, accordingly, the acknowledged the illusion of those revelations which the church had rejected; and the promise never more to maintain them. Upon this her sentence was mitigated; and she was condemned to perpetual imprisonment and to be fed during life on bread and water. But with this vengeance her enemies were not satisfied. In order to justify the verdict maximes against her, they industriously placed in her apartment a list of men's apparel; upon the sight of this garb, in which she had acquired so much renown, and alluded to, as the once beloved, by the appointment of heaven, her former ideas and passions revived, and the ventura in her lifetime to put on the forbidden dres. In this apparel she was detected; it was regarded as a relapse into heresy; her recantation became void; her partial pardon was revoked; and she was to be burned in the market-place of Rouen. In June 1331, this barbarous sentence, much more ignominious to those who inflicted it than to her who was the object of it, was executed. This admirable heroine, to whom the more generous sentiments of the ancients would have erected altars, was, on pretence of heresy and magic, delivered over alive to the flames, and expired, by that dreadful punishment, the signal visitation which she had rendered to her prince and to her native country. She met her fate with resolution, and the English themselves beheld the scene with tears. The King made no effort for avenging her cause; he merely procured a revision of the process, and a restoration of her memory ten years afterwards by the pope, in an act which styled her a "Martyr to her religion, her country, and her king." Her countrymen, more prompt in the tribute of their respect, propagated many tales relating to her execution; and some of them would not even allow her to be dead, but professed to expect her speedy return to conduct them again to victory. Of the character and conduct of this singular heroine, the most probable opinion is, that of her being an honest and devoted enthusiast, of whose fancies and passions the principal portion in the interest of Charles availed themselves for deluding and rousing into exertion the passions of the people, at a crisis of peculiar importance; in which the maid of Orleans was instrumental in giving a decisive turn to the contest between the French and English. The exploits of Joan of Arc have been celebrated both in prose and verse. Of the latter, the fervid poem of Chaucer has been much less successful than the burlesque and licentious one of Voltaire; but the injury done by it to her memory has been in some degree repaired in England, by Southey's sublime and spirited poem of "Joan of Arc," which exhibits her in the brightest colours of virtue and heroism. Hume's Hist. of Engl. vol. iii. p. 141, &c. Nouv. Dict. Hilar. art. Jeanne.

Arc, in Geography, a rapid river of Savoy, which rises in the northern part of mount Cenis, on the confines of Aosta, traverses the country of Marianne, and discharges itself into the lake about four miles from Montmlan.

Aroe, or Ar, a river of France, rises on the side of Porcius, traverses the plain of Pourieres, where Marius defeated the Cimbri; passes by Aix, and loses itself in the lake of Martigues in the department of the mouths of the Rhone. Some have supposed this to be the Caunum fluxum of Ptolemy.

Arc en Barres, a town of France, in the department of the Upper Marne, and chief place of a canton in the district of Chaumont, fourteen miles north-west of Langres. The place contains 1768, and the canton 5733 inhabitants. The territory includes 25,516 hectares, and 9 communes.

Arc for Title, a town of France, in the department of the Côte-d'Or, and chief place of a canton in the district of Dijon, on the river Tille, five miles east of the rail of Dijon.

Arc, in Ancient Geography, a town of Africa in Numidia on the south of the river Medjer, and towards 35° 32' N. lat.

Arc, a town of Phrygia, at the foot of mount Libanus, between Antaresus and Tripolis, upon a small river about half a league from the sea coast. This was the city of the Arcites, who were the offspring of Canna and Sisander, and said to have been founded by Arcas, one of her sons. The inhabitants consecrated a temple in this place to Alexander the Great; and the city was celebrated in honour of the Roman Emperors, and on account of its situation, "Cecaera of Libanus," which name, as is seen in medals, it had borne a century before the time of Alexander Severus. Shaw, in his travels (p. 270) speaks of the ruins of Arc, and says, that the situation of this ancient city was very delightful; having to the north the prospect of an extensive plain, diversified with a great variety of towns and villages, ponds and rivers; so that the view might be seen from the sea, and to the east rising over a long and distant chain of mountains. The citadel was erected upon the summit of an adjacent mountain of a conical form, and in former times has been impregnable. Water was conveyed from the mountains to the city by an aqueduct, whose principal arch could not have been less than 100 feet in diameter.

Arc, Cape d', in Geography, lies on the coast of Africa, E. S. E. from the N. E. end of the island of Fortevertuna, the most southerly of the Canaries. It is about N. lat. 27° 15', and W. long. 12° 10'.

Arc cordis is used by some Anatomists, to denote the pericardium.

Arc, in Anatomy, a genus of Bivalves, the animal of which is supposed to be a Calyx: the valves are equal; and the hinge befeet with numerous sharp teeth, inserted between each other. The species are arranged in two sections, viz. the first has an entire margin, and in the other the margin is crenulated: each of these sections is subdivided into two parts, the first having the beaks recurved, and in the second they are infected. The species enumerated by Gmelin arc, tortuosa, noae, barbata, modiolus, pella, ovata, pellicida, roblata, frurata. pulchella, afra, floruis, cancellata, minuta, hesia, nodulosa, antiquata, fenilis, granosa, corbicula, cuneispalla, acünatera, pallens, cucullus, magnella, reticulata, candida, indica, jadeanenis, campechienæ, late, f. negalenis, undata, pectunculus, pelinina, glycerinae, pilafa, nummara, nucleus, rhomboidea, marmorea, angulosa, lispaha.

ARCADE, in Architecture, is used to denote any opening in the wall of a building formed by an arch.

ARCADES, or Arcadia, in Ancises Geography, a town on the west side of the island of Crete.

ARCADIA was one of the six districts into which the Peloponnesus was divided. Its name is said to have been derived from Arcas their fourth king, and it was anciently called Pelagi, being inhabited by the Pelagi, who boated of their descent from Pelagis. The Pelagi,ins were found in several parts of Greece; but their chief and primitive seat is generally supposed to have been Arcadia, where inhabitants are universally allowed to be the most ancient people in Greece. Bound on the north by Elys, on the east by Argolis, on the south by Laconia, and on the west by Mefenia, Arcadia occupied a central situation, and was the only district of the Grecian peninsula which was not maritime.
time. It consisted chiefly of mountainous regions, embosoming valleys which were often intersected by rivers and streams; but in certain places these deflected from the mountains too abundant waters, which finding no outlet in the plain, suddenly precipitated themselves into profound gulphs, purifying their course for some distance through subterraneous caverns, and at length burst forth and again appeared above the earth. The foil, in most parts extremely fertile, was peculiarly favourable to pastoral, and nourished a race of herdsmen, who, like other highlanders, invigorated by the exercise and efforts which the rugged scenes of their occupation often required for subsistence, and emboldened by the danger of the chase, encountered not merely for amusement but for the security of their flocks, were strong and courageous; and their courage was increased by the confidence which the natural bulwarks of their country afforded against foreign invasion.

Arcadia was divided into upper and lower, the former on the north, and the latter on the south; and this was the most mountainous of the two, was famous for its breed of horses and asses, whence the name of these animals was denominated the Arcadian nightside. Both these districts abounded with cities, of which the following have been recorded, viz. Megalopolis, now Leontari, Mantinea, now Goriza, Palantium, Messenius, Tegea, Orchomenus, Clitorium, Nanactus, Iphiis, now Dimazana, Hiera on the river Alpheus, Stymphalus on the lake and river of its name, in which there was a temple of Minerva, and Phiala or Phigala on the river Neda. The chief mountains were Cillene, Phoeb, now Xiria, Stymphalus, now Pogli, Pharia, and Lycus, called also Olympus, by Pauninus Cerausus, and by the present inhabitants Miteuia.

At first the Arcadians were a savage people, living in the woods and fields, and feeding promiscuously on the products of the ground. At last they were taught by Pelaugus, the founder of their monarchy, to build huts, to live sociably, to exchange their common food for nuts, acorns, or beechnuts, and to clothe themselves with the skins of wild beasts. They began afterwards to feed cattle, being invited to it by the fertility of their soil. The shepherds of Arcadia, amidst their numerous flocks and herds, were distinguished by the tuneful strains of their vocal and instrumental music, and for the worship which they paid to their god Pan.

Affording few temptations to commercial adventures, they had very little of the intercourse of peace with surrounding principalities. The secure and insular position of their territory long prevailed the Arcadians, on the one hand unimproved by the advancing refinement of Greek civilization, and on the other infected by Greek degeneracy; and when other states had exhibited the highest exertions of genius, and were advanced to eminence in the arts, accommodations, and luxuries of life, the Arcadians were distinguished by the innocent simplicity of their manners and by their fond attachment to pastoral retirement. "The exuberant fertility of the Dodona district, the inland situation, the generous warmth, yet lively verdure, together with the picturesque and animating scenery of this delightful region, seemed peculiarly adapted to inspire, and to gratify, the love of rural happiness; and to afford in all their elegance and dignity, those sublime and sacred joys of the country, which the genius of ancient poets has felt and described with such affecting sensibility." 1

Lycus, the son of the founder of the Arcadians, improved what his father had done towards civilizing them, by introducing among them the worship of Jupiter. Each of his sons built a city, which they called respectively by their own names; in them the people acquired the habits of social life; and in the next reign they began to know corn, make bread, spin wool, and manufacture cloth for garments; so that in four generations, the Arcadians, from being but one remove from wild beasts, became civilized, industrious, and attached to society, husbandry, and a regular police.

Arcadia, like other states of Greece, was at length governed by kings. Of these kings they reckon twenty-five from Pelaugus, the founder of their monarchy, to Aristocrates II. with whom it terminated. This last king was murdered by his subjects for his treachery to the Macedonians his allies, whom he betrayed to the Spartans, then at war with them. This event happened in the first year of the 58th Olympiad, or the 665th year before Christ; and if Pelaugus was contemporary with Creopse, the founder of Athens, as Sir Isaac Newton supposes, and we refer him, with Blair in Tab. ii. of his Chronology, to the year 1550 before Christ, the duration of the Arcadian monarchy will be about 888 years. But about the commencement of this period there is a considerable difference of opinion among chroniclers. However this be, the kings of Arcadia possessed only limited authority, but afterwards constituted a federal republic, of which the several departments respectively deputed to the states general.

But the ambition of neighbouring states, and especially the rivalry of the two chief powers of Greece, Athens and Sparta, which involved intermediate and adjacent countries in their contentions, reached the mountains of Arcadia, and compelled the inhabitants frequently to change the track for the sword. When obliged by necessity, or excited by honour, the Arcadian invaders took the field, they displayed such valorous valour, and exerted such efforts of vigour and activity, as made their services eagerly desired, and purchased with emulation, by the surrounding states. They commonly appeared clad with the skins of wolves and bears, and carried either a little bundle of javelins, or a lance in their hands, which they used with a peculiar dexterity. Their women also became at length such expert warriors, that they have sometimes by their own valorous feats decided a doubtful victory. Hence such offers were made to them as induced many, when their own country was at peace, to serve as mercenaries in foreign armies. The warfare in which the Arcadians were engaged, first from necessity, and afterwards from choice, made a very important change in their internal situation. From farms and villages they assembled into walled towns; they fortified Tegea, and afterwards Mantinea.

The Arcadians of Tegea joined the Greek patriots of Athens and Sparta, in vindicating the freedom and independence of their native land against the attempts of Oriental despotism, and bore an important share in the battle of Plataea, which consummated the victories of liberty. In the Peloponnesian war, Arcadia, situated between the contending parties, was involved in their hostilities. The Spartans, after having vanquished their principal rival, endeavored to subjugate the Arcadians, but though sometimes victorious, yet they were never completely successful. At length, after the peace of Antalcidas had withdrawn their chief enemies from the field, they directed their efforts against Mantinea, and that city, become the capital of Arcadia, was after a gallant defence compelled to submit. The Arcadians however were not ultimately subdued; Epaminondas, in vindicating the liberties of his own country, affixed the independence of other states against the overbearing domination of Sparta. In the

* Vol. II. *
first invasion of Laconia, the Arcadians joined the pumilier
of their impious opperflora. Now so much accustomcd to the
conflicts of war, they also partook of its rapacity, and
instead of the honn't simplicity of theirheirs, imbued the
plundering spirit of mercenary soldiers. Auxiliaires to the
Thucian hero, they had profited by his yucces: encouraged
by their advantages, and the deep influence and illustre of Sparta,
they gave scope to their ambition, and planted the flagst affha
of the whole peninnsa. Acquiring the policy as well
as views of their changed national charactet, to pave the way
for the total conquest of the Peloponnæus, they began by
wresting several places from the Elians, the leat warlike 
and moll wealthy of their neighbours. But the arduous
of rapacious avarice operating with too much violence and pre-
cipitation, by raving confederate reliance, ultimately de-
feated the purposes of ambition. Injustice and robbery they
aggravated by impatience and facrilege; they directed their de-
predations against the temple of Olympia, containing the
collected treasures of many centuries, the rich gifts of va-
nity and superstition. Not only neighbouring powers but
many of their own countrymen cenferred this fpoliait; in-
ternal discord arose between the plunderers and those who
reprobated the deed, and their schemes of boundless aggran-
difement proved abortive. The Arcadians now intermingling
so much in the wars and intrigues of the Grecian states, ac-
accompanied them in their declension from patriotism to felitic
Corruption, from corruption to cenvration and the decay of
military prowess, until they became dependent and tributary
appendages of the Macedonan kings, and afterwards pro-
vinces of the Roman empire. Since that time all traces of
Arcadia are lost, and the country is only known as a part of
the Grecian or the Turkish empire. Several colonies of Ar-
cadians migrated at different periods from their own country,
and settled in Lavier; and may therefore be justly reckoned
among the first inhabitants of Italy. Paufanias in Arcad.
p. 64, &c.

ARCADIA, or CVPARISSA, in Geography, a sea-port town
of European Turkey, in the Morea, situate on a gulf to
which it gives name, open to the Mediterranean sea, fix
leagues to the north of Navarin. N. lat. 37° 24'. E. long.
21° 47'.

ARCADIUS, in Biography and History, an emperor of
the calf, and eldest fon of Theodorus the Great, was born
in Spain, A.D. 377, and invelled by his father with the purple at
the age of six years, A.D. 383. At his death, in 395, The-
odorus divided the empire between his two sons, Arcadius and
Honourius; allotting to the former Thrace, Aasia Minor,
Syria, and Egypt, with Dacia, Macedonia, and half of Il-
llyricum. Arcadius poiffessed none of those qualities that
were adapted to his station, and to the extensive dominion
which was assigned him; and he had the misfortune, at the
commencement of his reign, to be under the direction of
his father's unworthy favourite, Rufinus, whose ambition
led him to aspire to the sovereignty itself. In order the more
effectually to secure his influence over the young
prince, he concerted a marriage between Arcadius and his
doughter: but the enmity Eutropius contrived to attach
the emperor's affections to Eudoxia, and he was married to
her in the first year of his reign. Rufinus being cut off by
an untimely death, Eutropius, who was even a worse man
than Rufinus, succeeded to the ministerial power, and by
fraud or violence, removed from the view of Arcadius all
those in whom he placed any confidence. This minister,
however, did not long enjoy the power which he acquired
by artifice, and which he exercised merely to serve the pur-
poffs of his own ambition and avarice. Having fomented
discard between ArcADIUS and his brother Honorius, and
persuaded Gildo to transfer the allegiance of Aries from
the latter to the former, he calked the emperor A.D. 397,
with a view to his own security and that of his adherents,
to pail an unjust and cruel law of treason, extending the
crime to all practices against the ministers and subjects of the
empire, and inflicted the punishment of it on descendants. His
power was at length overthrown by the rebellion of Tribi-
gild, the Oltragoth, A.D. 399, and by the concurs of
influence of the empress Eudoxia, by whom he was suc-
ceded in the absolute direction and government of the fecile
Arcadians. She assumed the title of "Augusta," and had
her image borne through all the provinces of the empire,
which was honoured with the respect bellowed on that of
the emperor himself. By her perverted the venerable
Chrysolotom, who was banished and died in exile, because
he too freely exposed the vices of the court, and of the
empress, Eudoxia excited illusions at Constantinople;
but in the bloom of youth the died of a mischance, A.D.
404. Arcadius survived her a few years, and witnessed the
calaminities that were accumulating on the eastern empire.
At length in his thirty-first year, he died at Constan-
tinople; A.D. 408, after having reigned twelve years with his
father, and nearly fourteen years after his death. He had
one fon, viz. Theodorus, who at the time of his decease
was eight years of age, and four daughters. Arcadius
was a prince of very moderate talents; being indolent,
and also addicted to pleasure, he was harmfully imposed
upon, and entirely governed by his ministers and the
empress, who, under the faction and by an abuse of his au-
thority, oppressed the people in the most despotic and ty-
ranical manner. "It is impossible," says Mr. Gibbon,
"to delineate his character; since, in a period very co-
piously furnished with historical materials, it has not been
possible to remark one action that properly belongs to the
fon of the great Theodorus."

The supposed testament of Arcadius, by which he ap-
pointed Jezedegd, the Persian monarch, guardian of his
fon, and which is mentioned by Procopius, is not authen-

ARCADIUS, in Entomology, a species of Papilio
(P. Nymph. Fab.) The wings are very entire; the anterior
ones black with blue and white spots; posterior ones fuc-
cous, beneath cheetip-brown. This kind inhabits Africa.
Fabricius. Obs. Gmelin overlooked this new species in his
Syst. Nat.

ARCE Caflors, in Ecclesiastical Antiquity, a title formerly
given to the archdeacon, on account of his having the cuf-
mody of the church's clerics, or treasurers.

ARCGANTES, in Ancient Geography, called also
Liligantes and Limigantes, were Sarracens, who, being
expelled their own country, took possession of some parts
of the Roman territory.

ARCALU, in Geography, the name of a small princi-
pality of the Tartar Mongols, on the river Hoamko; where
the great wall of China commenced.

ARCAN, a town of Asia, in Tartary, upon the fron-
tiers of Mawaranáhtra, situate upon the river Casima, and
called also Adcreand.

ARCANE, a small town of Asiatic Turkey, in Natolia,
upon the coast of the Black Sea, between Siapiæ, or
Sinapæ, and the Cape Pifello.

ARCAGIS, in the Turkish Armies, an inferior kind of
infantry, which serve as infans parvis, and to harass and
pillage the enemies' frontiers.

The Archagis are an order inferior to the Janizaries;
and, when any of them distinguish themselves, are usually preferred in the Juniorites order. They have no pay, but are to subsist on their plunder.

ARCANI, in Geography, a town of Armenia, at the mouth of a river of the same name, supposed to be the ancient Apaurus.

ARCANIOUS, in Entomology, a species of Papilio (Dan. Fel.). The wings are very entire, squinuous beneath, on the anterior pair one occluded spot; on the posterior pair five, the first of which is separated from the others by a band. Fabricius. This is Papilio Angius of Scopoli and Poda, and inhabits Europe. It is produced from a green larva, which has an obscure line along the back, yellow on the sides, and bidentated at the tail.

ARCANA, a kind of red chalk, called by physiologists rubricus faberis, as being used by carpenters to colour their lines for marking timber, &c.

ARCANO, in Geography, a town of Italy, belonging to the Venetian states, in the province of Triul, eleven miles west of Udina.

ARCANUM literally signifies a secret; and is therefore very pertinently applied by quacks and impostors in medicine, who conceal their ignorance and fraud under the pretence of secrecy. Hence a multitude of arcanae.

ARCANUM Duplicatum. This term was invented by Glauber, and applied by him to the salt remaining after the distillation of nitrous acid, from nitre and sulphuric acid. It is the same as afterwards known by the name Vitriolated Tartar; or, according to the modern nomenclature, Sulphat of Potash.

ARCAS, in Astronomy, a name given by some old writers to the star Arcturus, in the constellation Bootes. Arcas, the son of Calixio by Jupiter, it is said, when he was about to kill his mother in the shape of a bear, was, together with her, snatched up into heaven; where she was converted into the constellation of the Great Bear; others say into this single star.

ARCAS, in Entomology, a species of Papilio. The wings are very entire and fulvous; margin and spots black; posterior ones beneath grey, and without spots. Inhabits the Cape of Good Hope. Fabricius and Gmelin.

ARCAS, in Ancient Geography, a town of Armenia Minor, according to the Antonine Itinerary.

ARCAS, in Geography, a small place of Spain, in Cæstile, the Arcabria of the ancients.

ARCAS, an island in the Gulf of Mexico, in the bay of Campeachy. N. lat. 20°. W. long. 92° 50'.

ARCASSON Bay, lies on the coast of France, 18 leagues south-westly from the river of Bourdeaux to Cape Ferret, its north entrance; and before it lies the island Tergy, with a channel on each side.

ARCAS-TE, an island on the west coast of Africa, south of the river Gambia, and of Cape Rojo.

ARCATIS Regia Sara, in Ancient Geography. Arcate, a town in the interior of the Indian peninsula, on this side the Ganges, and the capital of a country called Soretanum Parala.

ARC-BOUTANT, in Buildings, a kind of flat arch, or part of an arch, abutting against the feet of an arch, or rims of a vault, to support, and prevent their giving way.

The name is French; formed of arc and bouder, to abut. Arc-boutants are only arched buttresses.

ARCE, in Ancient Geography, also called Rakem and Petra, the capital of Arabia Petraea.

ARCE. See ARCANA and ARCAEANS.

ARCE, in Geography, a town of Italy, in the kingdom of Naples, and country of Lavora, six miles south of Sora.

ARCEGOVINA, a province of Dalmatia, between the country of the Dulcignotes to the south, the republic of Ragusa to the north-west, a part of Bolinia to the north-east, and the Adriatic sea to the south-west. The principal towns are Ripano, Cafel-Danovo, Cataro, and Budova, which are all fortified; and the river Moracico traverses the country, which abounds with mountains, and yet is very fertile, from the north-west to the south-west. The Venetians possess the greatest part of it, and the rest belongs to the Turks.

ARCELES, a town of France, in the department of the Eastern Pyrenees, and chief place of a canton, in the district of Ceret, four leagues south-east of Perpignan, and four east-north-east of Ceret.

ARCELLA, in Entomology, a species of Phalena (Zerba); wings pure white, with a common arched mark, and two marginal spots of brown. Fabricius, Gmelin. Inhabits Germany.

ARCE-EN-QUEUE, in Ornithology, the name of the Linnean Oryolus Annulatus, in Buffon's Hist. Nat. des Oise. ARCES, in Geography, a town of France, in the department of the Eastern Pyrenees, and chief place of a canton, in the district of Ceret, seven leagues south-west of Perpignan, and three south-west of Ceret.

ARCEILS, in Biography, a Greek philosopher, the founder of the Middle Academy, was a native of Aesol, and born in the first year of the 116th Olympiad, or the 316th year before Christ. He followed his first preceptor, Astylyco, the mathematician, to Sardis; but he afterwards went to Athens, where he studied music under Xanthus, geometry under Hipponicus, and philosophy under Theophratius, Aristotle, Polemon, and Crantor. With the latter, and also with Zeno, the founder of the Stoic sect, he formed an intimate friendship. Poetry was his favourite amusement, and he was so familiarly acquainted with Homer and Pindar, in particular, that he often cited in conversation pertinent passages from their works; and it was his practice every night before he went to sleep, to read a portion of Homer. After having in early life been initiated in mathematics and polite literature, he was desirous for the profession of the law, but he rather chose to devote himself to philosophy. After the death of Crates, he took possession of the academic chair, and his method of instruction was universally admired. However, the innovations which he introduced into the Platonic school, gave rise to a new school, called, in reference to Plato's school, the Second Academy, and with respect to a subsequent innovation by Carneades, the Middle Academy. See Academy.

The school of Arcellaus was founded upon the principle of the uncertainty of knowledge; and it was instituted in opposition to the Dogmatists, and particularly the Stoics, whose doctrine was different from that of Plato. This philosopher, under the influence of Socrates and Plato, and without explicitly avowing the doctrine of universal scepticism as taught in the school of Pyrrho, maintained, that whatever certainty there may be in the nature of things, every thing is uncertain to the human understanding. He, therefore, taught his disciples not with confidence to assert their own opinions, but to controvert those of others; that truth has no certain characters by which it may be distinguished from error; and therefore he suspended his judgment, and disputed merely with a view of convincing himself.
self that opposite opinions may be supported by arguments of equal weight. Hence his school became a theatre of unprofitable contention, in which his disciples were allowed to propose and to maintain their opinions; and then the master, by his skill in disputation, and by his captivating power of address, alienated the audience by courting them. Thus the point in debate seemed to be determined, till the same ingenuity was employed on the opposite side of the question.

Arcelianus has been compared to Thibrias Graecus, as a disturber of the peace, who endeavoured to overturn the established philosophy, without the merit of that political reformer; who attempted the correction of abuses and errors; for he brought the world of science into a worse state of confusion than that in which he found it. Accordingly his doctrine of uncertainty alarmed not only philosophers but civil magistrates; and he was considered as a common enemy to science and to society; and unquestionably his tenets seem needlessly to destroy the foundations of virtue, and to introduce uncertainty and indifference with regard to the obligations of morality. When Arcelianus was once reproached by an enemy for living according to his principles. Cleaneus, though a Stoic, justified him, and averred, "that though he destroyed morals by his doctrine, he established them by his conduct." "You flatter," said Arcelianus. "Is this flattery," replied Cleaneus, "to affect, that you say one thing and do another?" This, however, was a mere compliment, to which Arcelianus was not entitled; for, according to the representation of Diogenes Laertius, he was addicted to the most shameful intemperance and lewdness, and deferved the character of the corruptor of youth; so that the pernicious tendency of his principles was exemplified in his own practice. He died, in the 4th year of the 13th Olympiad, 231 years before Christ, though at the age of 75, a martyr to his licentious conduct; for the cause of his death was a delirium produced by excessive drinking. On many occasions, however, he manifested a generous and liberal spirit. When one of his pupils expressed a predilection in favour of a Peripatetic philosopher, named Hicetonymus, Arcelianus took him by the hand, and conducting him to his school, requested the philosopher to treat him in a manner suitable to his merit. When Cleaneus, who was the successor of Zeno, the professed adversary of Arcelianus, was afforded by one of his pupils, he would not restore him to his school till he had made a satisfactory acknowledgment for the offence. Having lent some silver vessels to a friend for an entertainment, when he found that he was poor, he would not allow them to be returned. Visiting a sick friend, whom he observed to be in poverty, he silently conveyed a purse of gold under his pillow. When the sick man discovered it, he said with a smile, "This is one of the generous frauds of Arcelianus." He is said to have spent a great part of the ample income arising from an estate at Pitane, the place of his birth, in similar acts of liberality. None of the writings of this philosopher have descended to our times. During his life he was honoured, and after his death the Athenians paid respect to his memory by a magnificent funeral. Two Christian fathers, viz. Numerins and Laclantius, have inveighed against his doctrine. Diogenes Laertius, l. iv. p. 28, &c. Suidas. Athen. Athen. vii. p. 278. Cic. Acad. Quis. l. i. c. 5—12. 24. De Fin. i. ii. c. 1. l. vi. c. 31. Esch. Prep. Evang. l. iv. c. 6. 9. Laclantius, l. iii. c. 4. Gen. Diet. Brucker's Hist. Philos. by Enfield, vol. i. p. 244, &c.

ARCESINE, in Ancient Geography, a town formerly situate in the island Amorgus, one of the Cyclades.

ARCESIUM, a cavern of mount Ida, in the isle of Crete.

ARCEUTUM, a river of Syria, which watered the territory of Antioch, according to Strabo.

ARCEUTUM, is used in some Ancient Law-Writers, for a procuration due to a bishop, abbot, or archdeacon, from their clergy, in time of entertainment.

ARCH, Arc, Arcus, in Geometry, a part of any curve line; e. g. of a circle, an ellipse, or the like. The arc of a circle is any part of its circumference. Such is A F B, Plate III. Geometry, fig. 35.

The base or line A B, that joins the two extremes of the arc, is called the chord; and A D, half of the chord bisected by the diameter at right angles, is the sine of half the said arc, viz. A E.

All angles are measured by arcs. For this purpose an arc is described, having its center in the point or vertex of the angle; and as every circle is supposed to be divided into 360 degrees; an arc is estimated according to the number of degrees which it contains. Thus an arc is said to be of 30, of 80, or 100 degrees. However, the measure of angles by the arc of a circle is founded upon the uniform curvature of the circle.

Arcs, concentric, are those which have the same center.

Arcs, equal, are such arcs of the same or equal circles, as contain the same number of degrees. Hence, in the same or equal circles, equal chords subtend equal arcs. And hence, again, arcs intercepted between parallel chords are equal.

A radius, C E, fig. 35, which bisects the chord in D, does also bisect the arc in E; and is perpendicular to the chord; and on the contrary. And hence the problem, to bisect an arc, is solved, by drawing a line C E from the center perpendicular to the chord in D. Equal arcs have equal chords, lines, tangents, &c.

Arcs, similar, or like, are those which contain the same number of degrees of unequal circles. Such are the arcs A B and D E, fig. 35, or fig. 1. Plate VI. Architecture.

Two radii being drawn from the center of two concentric circles, the two arcs intercepted between them bear the same ratio to their respective peripheries, and their radii; and also the two sectors to the areas of their respective circles. Similar arcs and other like curves are also like parts of the whole, or determined by line parts alike pointed.

Arc of a circle, the length of an, may be found by the following rule: viz. as 180 is to the number of degrees in the arc, so is 3.1416 times the radius to its length. Or, as 5 is to the number of degrees in the arc, in is. 0174533 times the radius to its length. For, when the radius is 1, half the circumference is 3.14159265, &c. Consequently 3.14159265, &c. = 0.01745332599, &c. = the length of 180 degrees an arc of 1 degree; hence r × .01745, &c. = the length of r² to the radius r, and, therefore, .01745, &c. × r × number of degrees in any arc = the length of that arc: e. g. let the length of the arc A D B (fig. 37), whose chord A B is 6, the radius being 9, be required. By trigonometry, 9 (A C) : 3 (A P) = r (radius of the tables): 1 2 3 4 5 . = line of the angle ACP, or arc A D, to the radius r; and the degrees in the table of lines answering to the fine arc 49. 47 12 960, the double of which is 98.9444142, or the degrees in the whole arc A B. Then, by the rule, 38.9424 492 × .0174533 × 9 = 0.117606 = the length of the arc required. Dr. Hutton has given several other theorems, with
with their demonstrations, for finding the lengths of circular arcs in his "Treatise of Menuration," p. 124, &c. ; some of which are as follow. Let the radius of a circle be 1, any arc \( a \), tangent \( t \), line \( s \), cosine \( c \), and verfcd line \( v \); and we shall have,

\[
a = t - \frac{1}{3} t^3 + \frac{1}{5} t^5 - \frac{1}{7} t^7 + \frac{1}{9} t^9 &c.
\]

\[
a = \frac{t}{c} - \frac{1}{3} \frac{t^3}{c^3} + \frac{1}{5} \frac{t^5}{c^5} - \frac{1}{7} \frac{t^7}{c^7} &c.
\]

\[
a = t + \frac{1}{2} \frac{t^3}{3} + \frac{1}{2} \frac{t^5}{2.4.5} + \frac{1}{2} \frac{t^7}{2.4.5.7} &c.
\]

\[
\frac{a}{\sqrt{2} \times x + \frac{1}{2} \frac{t}{2} + \frac{1}{2} \frac{t^3}{2.4.5} + \frac{1}{2} \frac{t^5}{2.4.5.7} &c.}
\]

\[
a = \frac{3.14159}{180}, \quad \text{&c. } d = .01745329, \quad \text{&c. } \times d, \text{ where } d
\]

denotes the number of degrees in the given arc ; \( a = \frac{B - C}{3} \) nearly, when \( C \) is the chord of the arc, and \( \varepsilon \) the chord of half the arc, whatever be the radius.

To investigate the length of the arc of any curve, put \( x = \) the abscissa, \( y = \) the ordinate of the arc \( z \) of any curve whatever, put \( z = \sqrt{x^2 + y^2} \); then, by means of the equation of the curve, find the value of \( x \) in terms of \( y \), or of \( y \) in terms of \( x \), and substitute that value instead of it in the above expression \( z = \sqrt{x^2 + y^2} \); and hence, taking the fluxes, they will give the length of the arc \( z \) in terms of \( x \) or \( y \). See Rectification.

| Table for finding the Length of Circular Arcs, Radius being Unity. |
|---|---|---|---|---|---|---|---|
| 1 | 0.0174533 | 1 | 0.0002009 | 1 | 0.000348 |
| 2 | 0.0349066 | 2 | 0.000313 | 2 | 0.000397 |
| 3 | 0.0523599 | 3 | 0.000467 | 3 | 0.000145 |
| 4 | 0.0698132 | 4 | 0.000660 | 4 | 0.000194 |
| 5 | 0.0872665 | 5 | 0.000893 | 5 | 0.000242 |
| 6 | 0.1047198 | 6 | 0.001145 | 6 | 0.000291 |
| 7 | 0.1221730 | 7 | 0.001397 | 7 | 0.000339 |
| 8 | 0.1396262 | 8 | 0.001649 | 8 | 0.000388 |
| 9 | 0.1570794 | 9 | 0.001902 | 9 | 0.000436 |
| 10 | 0.1745326 | 10 | 0.002155 | 10 | 0.000485 |
| 11 | 0.1920858 | | | | |
| 12 | 0.2096390 | | | | |
| 13 | 0.2271922 | | | | |
| 14 | 0.2447454 | | | | |
| 15 | 0.2622986 | | | | |
| 16 | 0.2798518 | | | | |
| 17 | 0.2974050 | | | | |
| 18 | 0.3149582 | | | | |
| 19 | 0.3325114 | | | | |
| 20 | 0.3490646 | | | | |
| 21 | 0.3666178 | | | | |
| 22 | 0.3841710 | | | | |
| 23 | 0.3941710 | | | | |
| 24 | 0.4041710 | | | | |
| 25 | 0.4141710 | | | | |
| 26 | 0.4241710 | | | | |
| 27 | 0.4341710 | | | | |
| 28 | 0.4441710 | | | | |
| 29 | 0.4541710 | | | | |
| 30 | 0.4641710 | | | | |

If the radius be not unity, the length may be found by proportion. Thus, unity :: radius :: the length here found : the length required.

See a table of circular arcs for each degree, minute, second, and third, of the meridian, in Hutton's Tables, p. 340. See a paper on an elementary manner of expressing the fluxes of circular arcs, by Monf. L'huillier in the Phil. Trans. for 1796, pt. i. p. 142-163.

To find the center of gravity of an arc of a circle; see Center of gravity.

For the fluxs, tangents, &c. of arcs, see Sine, Tangent, &c.

Arc, in Astronomy, has various denominations according to the circle to which it is applied.

Arc, Diurnal, of the sun's part of a circle parallel to the equator, described by the sun in his course betwixt rising and setting. The half of this being between the meridian and horizon, is called the semidurnal arc, and by means of this the time of his rising and setting is easily ascertained. Tables of semidurnal arcs may be found in most of our astronomical almanacs or ephemerides. The term is also applied to other celestial bodies, as the planets and stars. His nocturnal arc is of the same kind, excepting that it is described by his setting and rising.

The latitude and elevation of the pole are measured by an arc of the meridian; and the longitude, by an arc of a parallel circle.

Arch of precession or direction, is an arc of the ecliptic, which a planet seems to pass over, when its motion is direct, or according to the order of the signs.

Arch of retrogradation, is an arc of the ecliptic, described while a planet is retrograde, and moves contrary to the order of the signs.

Arch between the centers is an arc, as \( \Delta I \) (Plate I. Astronomy, fig. 11.), falling from the center of the earth's shadow, \( A \), perpendicular to the moon's orbit, \( OB \), and meeting her center at the middle of an eclipse. See Eclipse.

If the aggregate of the arc between the centers \( \Delta I \), and the apparent semi-diameter of the moon, be equal to the semidiameter of the shadow, the eclipse will be total without any duration; if less, total with some duration; and if greater, yet less than the sum of the semidiameters of the moon and the shadow, partial.

Arch of position, or angle of position, is the same with the horary angle. See Position.

Arch of vision is the sun's depth below the horizon, at which a star, before hid in his rays, begins to appear again.
### Table exhibiting the Arch of Planets and Fixed Stars nearly.

<table>
<thead>
<tr>
<th>Planets</th>
<th>Magnitude</th>
<th>Fixed Stars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Venus</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Mars</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Jupiter</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Saturn</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

However, the quantity of this arch is not always the same; but varies with the latitude, declination, right ascension or declination, and distance of any planet or star. With respect to Venus, it is sometimes reduced to nothing, as she is sometimes invisible when near from the sun's position, and above the zodiac. From this, it would appear that the arch is a dilated arc.

Arches are used in large intercolummations of spacious buildings, in porticoes, both within and without temples; in public halls; as ceilings, the courts of palaces, cloisters, theatres, and amphitheatres. They are also used to cover the cellars in the foundation of houses, and under magazines; also as buttresses and counterforts to support large walls laid deep in the earth; for triumphal arches, gates, windows, &c.; and, above all, for the foundations of bridges and aqueducts, and they are supported by piers, buttresses, &c.

Arches are of several kinds, and are commonly denominated from the figure or curve of them, as circular, elliptical, cycloidal, cyotomy, &c. according to their curve, in the form of a circle, or ellipse, cycloid, catenary, &c.

There are also other denominations of circular arches, according to the different parts of a circle, or manner of placing them; thus,

* Semicircular arches, which are those that make an exact semicircle, having their center in the middle of the span or chord of the arch; called also by the French builders, perfect arches, and arches on plain centre. The arches of Wilmont bridge are semicircular.

Scheme arches, or skene, are those which are lks than semicircles, and are consequently flatter arches, containing 120 or 90 or 60 degrees; &c.; they are also called imperfect and diminished arches.

Ark of the third and fourth point, or Gothic arches, or, as the Italians call them, di terzo and quarto acuto, because they always meet in an acute angle at top, consist of two eccentric circular arches meeting in an angle above, and drawn from the division of the chord into three or four, or more parts at pleasure; of this kind are many of the arches in churches and other old Gothic buildings.

Elliptical arches usually consist of semicircles, and were formerly much used instead of mantles in chimneys, and are now much used, from their bold and beautiful appearance, for many purposes, particularly for the arches of a bridge, like that at Blackfriars, on account of their strength, beauty, convenience, and cheapness.

Straight arches are those which have their upper and under edges parallel straight lines instead of curves; these are chiefly used over doors and windows, and have their ends and joints all pointing toward one common center.

The term arch is peculiarly used for the space between two piers of a bridge, intended for the passage of water, boats, &c.

Arch of equilibration, is that which is in equilibrium in all its parts, having no tendency to break in any one part more than in another, and which is therefore safer and stronger than any other figure, the materials and all other circumstances being alike.

An investigation of the nature and property of arches of equilibration will be found in the following propositions and examples:

**Problem I.** (Plate VI. Architecture, fig. 1.) The nature of the curve ABD, forming an arch, being given to find the nature of the extrados or curve PSR, bounding the top of the wall APRD, supported by that arch, by the pressure or weight of which wall all the parts of the arch are kept in equilibrio.—1st. Let several equal right lines AB, BC, CD, &c. (fig. 2.) placed in a vertical plane, be movable round the angles A, B, C, D, &c. whilst the points A, G at the base remain fixed and immovable; through B, C, D, &c. draw the lines Bi, Cm, Dp, &c. perpendicular to the horizon, and complete the parallelogram BbCd, and make Cl = Bb, and complete the parallelogram Clmn. In like manner make Do = Con and Ek = op, Fr = rt, and complete all the parallelograms in the figure as at first.—2d. Let several weights which are to one another as the lines Bi, Cm, Dp, &c. be respectively on the points B, C, D, &c.; now the force BI is equivalent to Bb, Bc, acting in the directions BA, BC; the force BC is destroyed by the resistance of the point A, but Bc endeavour to move the point B towards C, in like manner the force CM is equivalent to Cl and Cn; the force Do to Dp, op, &c.; now the forces Bb, acting towards C, and Cl, acting towards B, being equal by construction, destroy one another; and in like manner the forces Cn and Dp, and En and Ft, &c. destroy one another; and the point G, being fixed, is it manifest the figure ABCD, &c. will not be moved by the incumbent weights Bi, Cm, Dp, &c. but all its parts will remain in equilibrio.—3d. The force Bc: force Bb or Cl :: sine 1/2 Bb or iBC: S, sine ABi = 1/2 S ABi

\[
\frac{1}{S \cdot iBC} \quad \text{or} \quad \frac{1}{S \cdot mCB'}
\]

Likewise the force Cl: force Cn or

\[
\frac{1}{S \cdot mCD} \quad \text{or} \quad \frac{1}{S \cdot pDC}
\]

and so on; whence it is plain, in general, that any force CI is as S \cdot zmCB; now since Cn = S Cln \times CI

\[
S \cdot mCD \times CI
\]

therefore the force Cm is as

\[
S \cdot BCx \times CI
\]

1. Now let the number of the lines AB, BC, CD, &c. be increased and their lengths diminished ad infinitum, that the figures may obtain the form of a curve, and the presure will then act on all parts of it; and the angle BCx will then become the angle of contact, and the lines of mCD and mCD become equal to the lines of mCD; therefore drawing the tangent An (fig. 5.); the pressure on any point A to preserve the equilibrium will be as the angle of contact at A directly, and the square of the line of the angle mAn reciprocally; but the angle of contact is as the curvature, or reciprocally as the radius of curvature, therefore the pressure is reciprocally as that radius, and the square of the line of that angle mAn. —2. Cor. 1. If a weight like a wall mPSR, be incumbent on the arch ABD, standing
ARCH.

ing in a vertical plane, and all the parts kept in equilibrio, then the weight $A_g$, on any point $A$, is as the curvature at $A$ directly, and the cube of the sine of $ATC$ reciprocally; $AT$ being a tangent at the point $A$, meeting the axis $BC$ produced in $F$; for the weight on the given part of the arch is as

$$C \cdot \frac{\text{S.A.T.C.}}{C},$$

$C$ being the curvature at $A$, and the weight of the column $Ag$ is as $Ag \times Ar = Ag \times Ar \times \text{S.A.T.C.} = Ag \times \text{S.A.T.C.}$, because $Ar$ is given; therefore $Ag \times \text{S.A.T.C.}$ is as

$$C \cdot \frac{\text{S.A.T.C.}}{C},$$

and $Ag$ as $C \cdot \text{S.A.T.C.}$ to keep the parts in equilibrio. — Cor. 2. If $R$ be the radius of curvature in $A$, then the weight $Ag$ is as $\frac{1}{R \times \text{S.A.T.C.}}$. — Cor. 3.

If $BC = x$, $AC = y$, $BA = z$, then $Ag$ is as $\frac{x^3}{y^2}$, where $x$ is constant; for $\frac{z}{x} : \frac{y}{z} = \text{AT} : \text{AC} = \frac{1}{x}$, and $R$ may be found by supposing either $\frac{x}{y}$ or $\frac{y}{z}$ given. If $\frac{x}{y}$ be given, $R = \frac{z^2}{x^2} \cdot \frac{x^3}{y^2}$, therefore $Ag$ is as $\frac{x^3}{y^2} \cdot \frac{x^3}{y^2}$.

Problem II. The nature of the curve $ABD$ (fig. 3.) being given for the figure of an arch to find the height $Ag$ of the wall infilling thereon, at every point $A$, so that all the parts shall remain in equilibrio. Draw the ordinate $AC$, and let $BC = x$, $AC = y$, Arch $BA = z$, $BS$ the height of the wall at the vertex $a$, and $R$ = rad. curvature in $A$, draw the tangent $AT$, which will be found from the nature of the curve; find the $S$, angle $ATC$; then take $Ag$ as

$$\frac{1}{R \times \text{S.A.T.C.}} \left(\frac{x^3}{y^2} \cdot \frac{x^3}{y^2}\right)$$

for the height.

Example I. Let $AB$ (fig. 4.) be the arch of a circle, radius $r$, $BC = x$, cot. $BC = c$, $BS = a$, then $c = S$.

ATC, whence $Ag$ is as $\frac{1}{r^3}$ or as $\frac{1}{c^3}$ which at $B$ is

$$\frac{1}{r^3},$$

therefore $\frac{r}{c^3} : a = Ag = \frac{ar^3}{c^3}$. Let $BO = ON$, $BS = a$ (fig. 4.). Then as rad. $r$ = cot. $BA = c$:: $BO = CO$ and $r^3 : c^3 :: BO^3 : CO^3$, where $r^3 = BO^3$ and $c^3 = CO^3$, and $\frac{ar^3}{c^3} = aBS$.

$$BO^3 = \frac{BS \times BS}{CO^3} = Ag = BS \text{ when } CO = BO,$$

and when $CO = a$, $Ag$ is infinite; hence $8gM$ is a curve running up to an infinite height towards $M$, the perpendicular $NM$ being an asymptote to it, and the curve is as accurately as represented in the figure, when the thickness $BS$ at the top is about 1.5th of the span diameter. If a circular arch, and a right line at the top was necessarily required, the proportion of $BS$ to the radius $BO$ may be found, so as the arch may be nearly in equilibrio thus:

—When $8g$ is a right line, then $SQ$ in the figure must be nothing, or rather when the curve crosses the horizontal line, then $SQ$ is equal to nothing. Now to find that point from the general equation:

$$Ag = \frac{ar^3}{c^3} = \frac{BS \times BS}{CO^3} = \frac{BS \times BS}{BO \times BO} = \frac{BS \times BS}{BO \times BO}.$$

Put $BC = x$, then

$$\frac{ar^3}{c^3} = \frac{ar^3}{c^3} = Ag.$$
by 56.01, cubed equal to 7.8248; if BC be equal to 10, AC will be equal to 10.368, and so on, whatever number BC be taken.

For the ellipsoid, let NABD (fig. 6.) be an ellipsoid with the longer axis NH horizontal and semitransverse NO = 48.29 semi-conjugate BO = 41.04 feet; then if we suppose AD to be the span of the arch ABD, its height BC will be 50 feet; and when AD = 83; nearly, let BS be taken = 6 feet. Then the general equation for any height AG of the wall is \[ \frac{BS \times BO}{CO^3} \]. Suppose BC = 10, then

\[ CO = 31.04, \text{ and AG in this case is equal to } \frac{6 \times 41.04}{31.04} = 13.86; \text{ again suppose BC = 20, then AG} = \frac{6 \times 41.04}{21.04} = 44.53, \]

and by cubing the value of CO for a denominator to the constant numerator, \( 6 \times 41.04 \), the value of AG in every point of the arch may be readily found.

For the method of determining the figure of the extrados of the parabola, hyperbola, and catenary, see Dr. Hutton's Principles of Bridges, sect. 2, from page 31 to 40. Emerson's Miscellanies, p. 156, &c.

**Problem III.** Having the form of the extrados given to find the intrados; that is, having given the form of the line bounding the top of a wall supported by an arch, to find the figure of that arch, so that by the pressure of the superincumbent wall, the whole may remain in equilibrium. When the extrados is an horizontal line, Dr. Hutton and Mr. Emerson have both determined the nature of the curve, and calculated tables for constructing it, where the height, the span, and the thickness at the crown are given. Dr. Hutton supposes the span NH = 100, height BO = 40, and the thickness BE at the crown = 6. Put a or BE = 6, b or NO = OH = 50, and r or BO = 40. Then the equation of the curve is thus expressed:

\[ y = b \times \text{hyp. log. of } \frac{a + x + \sqrt{2ax + x^2}}{a} \]

Then the corresponding values of ED and DA, or horizontal and vertical lines, will be as in this table.

<table>
<thead>
<tr>
<th>Value of DE</th>
<th>Value of AD</th>
<th>Value of DE</th>
<th>Value of AD</th>
<th>Value of DE</th>
<th>Value of AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6.020</td>
<td>2</td>
<td>10.581</td>
<td>3</td>
<td>21.774</td>
</tr>
<tr>
<td>2</td>
<td>6.035</td>
<td>22</td>
<td>10.683</td>
<td>37</td>
<td>22.948</td>
</tr>
<tr>
<td>4</td>
<td>6.144</td>
<td>23</td>
<td>11.568</td>
<td>38</td>
<td>24.100</td>
</tr>
<tr>
<td>6</td>
<td>6.324</td>
<td>24</td>
<td>11.911</td>
<td>39</td>
<td>25.257</td>
</tr>
<tr>
<td>8</td>
<td>6.582</td>
<td>25</td>
<td>12.489</td>
<td>40</td>
<td>26.484</td>
</tr>
<tr>
<td>10</td>
<td>6.944</td>
<td>26</td>
<td>13.100</td>
<td>41</td>
<td>27.934</td>
</tr>
<tr>
<td>12</td>
<td>7.390</td>
<td>27</td>
<td>13.761</td>
<td>42</td>
<td>29.919</td>
</tr>
<tr>
<td>14</td>
<td>7.834</td>
<td>28</td>
<td>14.477</td>
<td>43</td>
<td>31.923</td>
</tr>
<tr>
<td>16</td>
<td>8.371</td>
<td>29</td>
<td>15.200</td>
<td>44</td>
<td>33.309</td>
</tr>
<tr>
<td>18</td>
<td>8.900</td>
<td>30</td>
<td>15.950</td>
<td>45</td>
<td>34.915</td>
</tr>
<tr>
<td>20</td>
<td>9.418</td>
<td>31</td>
<td>16.703</td>
<td>46</td>
<td>36.707</td>
</tr>
<tr>
<td>22</td>
<td>9.926</td>
<td>32</td>
<td>17.450</td>
<td>47</td>
<td>38.320</td>
</tr>
<tr>
<td>24</td>
<td>10.434</td>
<td>33</td>
<td>18.167</td>
<td>48</td>
<td>39.969</td>
</tr>
<tr>
<td>26</td>
<td>10.934</td>
<td>34</td>
<td>18.866</td>
<td>49</td>
<td>41.609</td>
</tr>
<tr>
<td>28</td>
<td>11.434</td>
<td>35</td>
<td></td>
<td>50</td>
<td>43.209</td>
</tr>
</tbody>
</table>

**TABLE for constructing the curve of equilibration.**

The chief properties of arches of different curves may be seen in sect. 2. of Dr. Hutton's "Principles of Bridges," above quoted. It there appears that none, except the mechanical curve of the arch of equilibration, can admit of a horizontal line at top; that this arch is of a form both graceful and convenient, as it may be made higher or lower at pleasure, with the same span or opening; that all other arches require extrados that are curved, more or less, either upwards or downwards; of these, the elliptical arch approaches the nearest to that of equilibration for strength and convenience; and it is also the best form for most bridges, as it can be made of any height to the same span, its hinges being at the same time sufficiently elevated above the water, even when it is very flat at top. Elliptical arches also appear holier and lighter, are more uniform in form, and are much cheaper than most others, as they require less materials and labour. Of the other curves, the cycloidal arch is first in quality to the elliptical one for these properties, and lastly the circle. As to the others, the parabola, hyperbola, and catenary, they are quite inadmissible in bridges of several arches; but may, in some cases, be employed for a bridge of one single arch which may be intended to rise very high, as in such cases they are not much loaded at the hinges. The weight of the arch, the pressure on the abutment, &c. &c. will all be considered under the article Bridge.

**ARCH.**

In buildings, is a number of stones placed together over a hollow space, in the form of some curve, as a part of a circle, of an ellipsis, a parabola, hyperbola, &c., having the joints so formed that it is supported without falling, by the piers or abutments from which it springs. Of circular and elliptical arches, some confit of semicircles or semiellipses, others are composed of segments of these curves.

Arches are chiefly used for bridges, entrances to cities and large buildings, and in general for the covering of any very large opening in walls; as also for smaller apertures, as doors, windows, &c.

The decoration of arches is various according to the nature and delineation of the building, but it generally consists of mouldings surrounding the curve, called an archivolt.

For the application of arches to particular purposes, see Bridge, Triumphal Arch, Gate, Door, Window, Dome, Vault.

**ARCH, triumphal,** is a gate or passage into a city, built of stone or marble, and magnificently adorned with architecture, sculpture, inscriptions, &c., serving not only to adorn a triumph at the return from a victorious expedition, but also to preserve the memory of the conqueror to posterity.

These arches were at first very simple, being built of brick, such as that of Romulus; or of roughly hewn stone, as that of Camillus; and they were also for a long time of a semicircular figure, and hence called "fornices" by Cicero. In process of time they acquired a greater degree of magnificence; and they were constructed of the finest marble, and of a square figure, with a large arched gate in the middle, and two small ones on each side, adorned with columns and statues, and various figures executed in sculpture. From the vault of the middle gate hung small winged images of victory, with crowns in their hands, which they let down on the victor's head as he passed in triumph. This kind of magnificence commenced under the first emperors; so that Pliny (H. N. xxxiv. 6 p. 12) calls it "novenium inventum." During the time of the republic, arches were appropriate to generals who obtained victories over
over the enemies of Rome; and none were erected in honour of the dead. But when Augustus became emperor, this was one species of adulation that was rendered him; and the Roman Senate proposed to him to have a triumphal arch erected in honour of Nero Drusus who died in Germany. He approved the proposal; and an arch of marble, adorned with trophies, was erected on the Via Appia. Caligula was the second on whom this honour was conferred after his death by the Pisans, to whom he had lent a colony. Germanicus was the third. This honour was afterwards extended to women; which Dion considers as an evidence of the degeneracy and fertility of the Romans: it was granted to Livia after her decease.

Antiquarians have reckoned 36 triumphal arches in Rome. The most celebrated of the ancient arches now remaining at Rome, are those of Titus, of Septimius Severus, and of Constantine; of which we have figures given us by Des Godetz.

The arch of Titus, placed between the forum and the colonnade, was erected, as some have thought, by the Senate and Roman people, to Titus and his father Vespasian, in honour of their victories; but it was more probably dedicated to Titus after his death and apotheosis, as the epitaph "divo," applied to him in the inscription still extant, signifies; and its chief design seems to have been to commemorate the conquest of Judea, and the destruction of Jerusalem. The frieze of this arch, which is of the Composite order, is supported by two columns, and upon it is represented the triumphal procession of Titus, including a figure of the river Jordan, with captives and animals, as well as instruments of sacrifice, in sculpture. On the inner sides of the arch are two bas-reliefs, one of which exhibits the emperor drawn in his triumphal car, drawn by six horses; the latter accompany the chariot; and victory follows, holding in her left hand a branch of palm, and in her right hand a crown of laurel over his head: the horses are conducted by a figure representing the city of Rome, with a helmet and spear; and she is followed by magistrates, &c. bearing branches of laurel. The other bas-relief represents the table of flour, the trumpets, the golden candelabrum, the flowers, the garlands, the fountains, the tables of the law, the ark of the covenant, and other utensils, brought as spoils by the conqueror from the temple of Jerusalem.

The arch of Septimius Severus was erected by the Roman people, as the inscription intimates, in honour of his victory over the Parthians and other barbarous nations, that were enemies of Rome. This arch stands near the back part of the Capitol, and though it is much sunk in the earth and mutilated, several bas-reliefs are still distinguishable. On the two sides of the vault of the grand arch are two winged victories bearing trophies, two genii with perfumes, flowers, and fruits, symbolical of the provinces subdued by Septimius, and four rivers. Eight fluted columns, of the Corinthian order, support the frieze that bears the inscription. A florid case of marble led to its summit, on which were placed Caracalla with his father and brother, in a triumphal chariot drawn by six horses, and at their sides ranks of soldiers who accompanied the triumph. The inscription imports that this arch was erected in honour of Marcus Antonius, as well as of S. Severus, "in acknowledgment of the reparation of the fakity of the Hiate, and the aggrandizement of the Roman empire, by their valor and eminent virtues."

The arch of Constantine informs almost entirely, and is much the finest of the three. It was erected by the Senate and Roman people in honour of Constantine after his victory over Maxentius, and stands in the Appian Way at the junction of the Cælian and Palatine mounts. The inscription on both arches of the architrave imports, that it was dedicated to the emperor Cæsar Flavius Constantinus Augustus, the greatest, the pious, and the happy: because, by a divine impulse, the greatness of his courage, and the aid of his army, he avenged the republic by his just arms, and, at the same time, rescued it from the tyrant and his whole faction."

On one side of the arch are the words "Liberator urbis," to the deliverer of the city; and on the other, "Fundatoris quietis," to the founder of public tranquility. Antiquarians have observed that some of the bas-reliefs, and other carvings upon this arch, appear to have been borrowed from the forum of Trajan, and that they represent that emperor's victories over the Daedaeans. This was the case with respect to the eight mutilated statues, whose heads were Lorenzo de Medicis broke off and conveyed away to Florence. This theft might not, perhaps, have been so notorious to posterity, if the arris of Constantine's time had not added some figures which make the fraud apparent, and by their maimed inferiority enliven the great decline of the arts in the interval between the reigns of those emperors. Although the decree for erecting this arch was, without doubt, passed immediately after the defeat of Maxentius, it appears from the monument itself, that the building was not finished and dedicated till the tenth year of Constantine's reign, or the year of Christ 315 or 316.

Triumphal arches were not confined to Rome and its environs. Two arches, with statues of the natural size, were erected on the Flaminian way, one on the bridge of Tiber, and the other at Rimini, in honour of Augustus, who made this way from Rome to Rimini; and another arch was constructed on the summit of Mount St. Bernard in the Alps, in honour of the victory which Augustus obtained over the inhabitants of those mountains. The triumphal arch of Ancona was erected in honour of Trajan, the emperor Plotina and her sister Marciana. One of the gates of Orange is a triumphal arch of C. Marius, supposed to have been erected in honour of the victory obtained by him and Catulus over the Teutones, Cimbri, and Ambraones. The gates, Peyro at Montpellier, and of St. Denis, St. Martin, and St. Antoine, at Paris, may also be reckoned triumphal arches of the moderns.

For China, triumphal arches are very numerous. They are erected not only in all the cities, but on the mountains and eminences along the roads; and were originally designed for the commemoration of their illustrious heroes, such as princes, generals, philosophers, and ministers of state. The number is computed to exceed 1000, among which there are nearly 200 of exquisite beauty and grandeur. Some few, less noble and beautiful, are erected to their most distinguishes females. The height of these arches is commonly between 20 and 25 feet, and they are decorated with figures of men, gods, and birds, placed in various attitudes, festoons and other ornaments, which are but indifferently carved; but in some the reliefs are so bold, that they seem to be separated from the work.

Arch, Mural. See Mural.

Arch, in the Scripture History. See Ark.

Arch, or Arca, in Geography, a small town of Germany in the Tyrol, seated on the Sarca, with a citadel standing on a mountain. It is the capital of a county, founded in 1413 by the emperor Sigismund. It is distant five leagues south-west from Trent, and twelve north-west from Verona.

Arch, or Arcus, formed of arcus, arcus, whence arcus, arcus, chief, is also a term without any meaning of itself, but which becomes very significant in composition with other words; as it heighen and exaggerates them; and has the force of a superlative, to shew the greatest degree or eminence of any thing.

Vol. II. 4 K
Thus we say, arch-bishop, arch-treasurer, arch-angel, arch-evangel, arch-heretic, &c. to denote such as have a preeminence over others. So also arch-king, arch-chaplain, &c. to express folly and knavery in the utmost degree.

In English, we usually cut off the final i, from archi, though with very ill effect, as the words with which it is joined sound much harder on that account, than they would do, were it preferred entire, as in its own mother tongue.

ARCHABIS, in Ancient Geography, a river of Asia, in the territory of Colchis, which, according to Arrian, discharged itself into the Circene fa.

ARCHAD, or Archad, was built by Nimrod after he had founded Babylon, from which it was not far distant. Bocchare supposed that it was sited on the banks of the Arquad, which flowed by the walls of Sitace; and indeed he suggests that they were the same city under different names.

ARCHADIA POLIS, an epithet of Asia, mentioned in the fifth council of Constantinople.

ARCHELA, the name of a city of Asia, in the district of Eolis, according to Pausanias.

ARCHEOGRAPHIA, the art of describing or explaining antiquities. See ANTIQUE.

ARCHENOPOlis, a city of Asia Minor, in Ionia, according to Pliny, in whole time it was destroyed, after having been often rebuilt. It was also called Cobe, Sipyrum, and Lebade.

ARCHENPOLIS, a town of the territory of Colchis, and metropolis of Lazica, seated, says Procopius, on a barren hill, and watered by a river that flowed from an adjacent mountain.

ARCHILEOTA, a keeper of ancient records.

ARCHIEUS. See ARCHUS.

ARCHAIS, properly denotes a phrase or dictum now obsolete and out of use, though anciently deemed good, or passable.

ARCHAISM, etymologicus, archasismus etymologicus, is when either an obsolete word, declension, or conjugation, is used.

ARCHAISM, syntacticus, archasismus syntacticus, is an unusual and obsolete construction in discourse.

ARCHAMA, in Ancient Geography, a town of Cappadocia, in the state of Cilicia, according to Ptolemy.

ARCHANDROPOLIS, a city of Egypt, according to Herodotus and Stephan. Byz. but not mentioned by Ptolemy, and probably not existing in his time.

ARCHANGEL, compounded of the Greek αρχας, prince, and αγγελός, angel, an intellectual subsance or angel, placed in the ninth order among the blessed spirits which compose the celestial hierarchy. See ANGEL.

The scripture (says lord King, Prim. Church. p. 735) mentions but two orders of angels; viz. archangels, preceding the angels; and the angels, obeying and attending on the archangels. Indeed, we have no account in scripture but of one exalted spirit, and anciently styled archangel (see 1 Theff. iv. 16.); though it is not improbable that as there are different degrees of glory in the celestial state, there may be different ranks, and corresponding denominations and offices among these superior beings.

ARCHANGEL, in Botany. See LAMLIUM.

ARCHANGEL, brown-leaved. See MELITIS.

ARCHANGEL, yellow. See GALEOPSIS.

ARCHANGEL, in Geography, a sea-port town of Russia, and capital of the government to which it gives name. This government is bounded on the north by the Frozen Ocean, on the east by the government of Tobolsk, on the south by the governments of Oolonetz and Vologda, and on the west by the White Sea and the dominions of Sweden. It was formerly included in the government of Vologda, but separated by a late partition of Catherine II. Accordingly it contains 5 districts; viz. Archangel, on the Dvina, about 70 versts from its mouth; Kolomjorion, on the Dvina; Schenkursk, on the river Vaga; Pinsk, on the right side of the Dvina, where the river Pomga falls into it; Oenga, on the river Oenga, in Ruffian Lapland; Kola, on the river Kola, near the bay of Kola, in the frozen Ocean; and Melein, on the river Melen, falling into the frozen Sea. The town of Archangel is sited on the river Dvina, near its mouth, where it forms the gulph of Archangel in the White Sea. It was discovered in 1773, on occasion of the first entrance of the English for opening a trade with Russia, by Richard Chancellor, who, under Sir Hugh Willughby, had the command of a small fleet of 13 ships, defiling for deliverance a northward passage to China and India. Two of these ships were forced by fogs of weather into the bay of the river Arzina, in Ruffian Lapland; and Sir Hugh Willughby, together with both crews, were frozen to death. Chancellor, discovering the country bordering on the White Sea, landed near the mouth of the Dvina, in a bay which he denominated the bay of St. Nicholas, from a convent near the present port of Archangel. Soon after this, the tsar Ivan Vassilevitch II. caust the harbour of the Archangel Michael to be constructed; granted several privileges to the English nation; and thus grew up at length the trading port of Archangel: the commerce from mercantile, and with some occasional interruptions, Archangel continued the sole port for the exports and imports of Russia, until the building of St. Petersburg, when Peter the Great removed the commerce of the White Sea, to the havens of the Baltic. From 1691 to 1701, the exports, on a yearly average, amounted to the value of 1,174,251 pounds sterling; whereas the imports from England were limited at only 58,884 pounds sterling. The revenue of the crown at Archangel amounted annually to about 100,900 rubles; a sum which, according to the value of money at that time, may be deemed very considerable. The principal articles of export were then potatoes, caviar, tallow, wax, hides, hemp, feathers, tar, yarn, beef, rharbar, silk (probably Chinese and Persian), cork, bacon, cordage, furs, bristles, &c. all rough commodities. In 1752, Elizabeth again restored the ancient immunities of Archangel, and its present trade is not inconsiderable. To the former articles of exportation, several others of importance are added, such as corn, linen, iron, flax, tar, oil, tallow, tar, hemp, coarse linen, cordage, hides, masts, tallow, which are mostly conveyed by the Dvina: and it also forms a principal communication with the northern and western parts of Siberia, whence furkins and iron are procured. A ship goes every year from Archangel to winter at Spitzbergen; and at least one frequently goes to Novaya Zemlia, for the benefit of the fishery.

From a flattening of the port-du-taxes, given by Mr. Tooke for 1773, it appears that the imports of Archangel amounted to 281,747 rubles, 63 kopecks; its exports to 1,367,926 rubles, 58½ kopecks; and duties to 144,914 rubles, 84½ kopecks. The water of the sea near Archangel is so briny, that quantities of sea-salt are prepared from it, though that of the White Sea in general contains proportionably but little salt. The fishery here, and on other parts of this sea, is very considerable, particularly of fockfish, herrings, whales, morles, porpoises, sea-dogs, &c. The dock-
dox-yards of Archangel are not in the town, but at the distance from it of five versts, on an island in the Dvin, named Solombol, which is pretty large, and inhabited by people belonging to the town. The ships are built in docks, and then launched from the stocks; and the timber of which they are constructed is that of the larch-tree, which is very cheap: a quantity sufficient for a ship of 60 guns costs there, if carefully and honestly purchased, somewhat more than 5000 rubles. The oak timber, which is used for particular parts of the vessel, is brought thither from the precincts of Catan.

In the government of Archangel, and particularly in the southern parts, the breeding of cattle is carried on with great success; and every where about the town there is a fine breed of large cows, brought originally from Holland, and which are not found in the kaff to degenerate. In the district of Archangel is also found a good kind of poney, fleet and lanky; but the genuine breed begins to be rare.

Mr. Coxe informs us, that the most honest and intelligent persons of the mercantile and trading order among the Russians are the inhabitants of Archangel and its environs: most of them are able to read, write, and call accounts: many of them are much employed at Petersburg by the members of the British factory, to superintend their warehouses, and they have the general character of industrious and faithful servants. This ingenious traveller traces the dilligent character of the inhabitants of Archangel and its environs, to this town's having been, during a considerable period, the great emporium of Russia; so that many of them, being connected with foreign merchants, who required great exactness in their dealings, were gradually trained to business. By a kind of local enthusiasm, and traditional instruction, they have continued to distinguish themselves among their countrymen, by acquiring the rudiments of arithmetic, and by a diligent discharge of their trust. Archangel is situated in N. lat. 64° 34'. E. long. 38° 55'.

ARCHANGELICA, in Botany. See Angelica.

ARCHANGELICA, in Entomology, a species of Aphis, found on the plant Angelica Archangelica, and described by Scopoli: it is black, beak and abdomen greenish. Gmelin.

ARCHANGELSKOJ, in Geography, a town of Siberia, in the government of Ikutzak, at the conflux of the Tungus and the Oka, 116 miles north-west of Udiak. N. lat. 59° 20'. E. long. 101° 47'.

ARCHARD, in Commerce, a kind of green fruit, pickled in vinegar, and much valued throughout the East Indies.

The bell are those brought from Persia, in bottles, much like small cucumbers among us.

ARCHASIA, in Entomology, a species of Papilio found in Java. The wings are dentated, brown, with a common fulvous band, the first half of which is blue on the anterior wings. Gmelin. Giff. This author is indebted to Fabricius for his description, and by him this species is called Arcisia. It is the same fize as Papilio Atalanta.

ARCHBISHOP, Archiepiscopus, a metropolitan prelate, having several suffragan bishops under him.

Archbishops were not known in the East till about the year 320; and though there were some soon after this who had the title, yet that was only a personal honour, by which the bishops of considerable cities were distinguished. It was not till of late that archbishops became metropolitans, and had suffragans under them.

Athanasius appears to be the first who used the title archbishop, which he gave occasionally to his predecessor.

Gregory Nazianzen, in like manner, gave it to Athanasius; not that either of them was entitled to any jurisdiction, or any precedence, in virtue of it.

Among the Latins, Idoreo Hifpalensis is the first that speaks of archbishops. He distinguishes four orders or degrees in the ecclesiastical hierarchy, viz. patriarchs, archbishops, metropolitans, and bishops.

In the fourth century, when Constanitine the Great modelled the ecclesiastical government according to the civil, new gradations of eminence and rank were introduced among the bishops, corresponding to those that were established in the late. Before this period, three prelates seem to have enjoyed a certain degree of pre-eminence above the rest of the episcopal order; these were the bishops of Rome, Antioch, and Alexandria; and to these the bishop of Constantine was added, when the imperial residence was transferred to that city. These four prelates answered to the four prorogate prefects-created by Constanitine; and it is possible that in this century they were distinguished by the Jewish title of patriarchs. After these followed the exarchs, who had the inspection over several provinces, and answered to the appointment of certain civil officers who bore the same title. In a lower class were the metropolitans, who had only the government of one province, under whom were the archbishops, whose inspection was confined to certain districts; but in this gradation the bishops brought up the rear. Moh. Eccl. Hist. v. i. p. 349. See Bishop.

ARCHBISHOPPRICK, Archiepiscopatus, the dignity of archbishop, or the province under his jurisdiction.

There are now two archbishopricks in England; viz. of Canterbury and York; the prelates whereof are called pri- mates, and metropolitans; with this only difference, that the former is called primate of all England, and the latter, simply, primate of England.

The latter yields likewise in prerogative and jurisdiction to the former. The archbishoprick of York extends over the counties of Northumberland, Durham, Cumberland, Westmoreland, Chefiire, Lancashire, and the Isle of Man, besides its proper and peculiar diocese of the greatest part of York- shire and Nottinghamshire. That of Canterbury comprehends the other counties, and has its peculiar diocese, being a great part of Kent. The archiepiscopal office is then a dignity above a jurisdiction; and the primates rarely interfere in any dioceses except their own. They are appointed by the king, in the same manner as the bishops, by what is called a congé d’eüire.

The archbishop, before the inspection of the bishops and inferior clergy in the province over which he preaches, exer- cises episcopal jurisdiction in his own diocese. As arch- bishop, he, upon receipt of the king’s writ, calls the bishops and clergy of his province to meet in convocation; but he cannot assemble them without the king’s writ. To him all appeals are made from inferior jurisdictions within his province; and, as an appeal lies from the bishops in person to him in person, so it also lies from the consistory courts of each diocese to his archiepiscopal court. He is guardian of the spiritualities of any vacant see in his province, as the king is of the temporalities; and exercises ecclesiastical jurisdiction in it. He is entitled to present by lapse to all the ecclesiastical livings in the disposal of his diocesan bishops, if not filled within six months. He has likewise a customary prerogative upon consecrating a bishop, to name the papal, dean, or chaplain to be made for by such bishop; in lieu of which it is now usual to accept an option. He is said to be enthroned when vested in the archbishoprick; whereas bishops are said to be installed.

4 K 2 Arch-
ARCHBISHOPRICS, as well as bishoprics, may become void by death, deprivation for any gross and notorious crime, and reformation, wherein, on the part of an archbishop, must be made to the king himself. When an archbishopric is vacant, the dean and chapter are the spiritual guardians, ever since the office of prior of Canterbury was abolished at the Reformation.

The archbishop of Canterbury had formerly, viz. till the year 1538, jurisdiction over all lands as well as over England, and was also a patriarch, and functionary auctoris archiepiscopi, and archiepiscopi Britanniæ pontificis. Matters were done and recorded in his name thus, anno pontificatus regis primus, &c. The first archbishop of Canterbury was Anhelm, appointed by King Ethelbert, on his conversion to Christianity, about the year 598. He also called legatus primus. See Legate. He even enjoyed some secular marks of royalty, as to be patron of a bishopric, which he was of Rochester; and to make knights, coin monies, &c. He is still the first peer of England, and the next to the royal family; having precedence of all dukes, and all great officers of the crown. It is his privilege, by custom, to crown the king and queens of this kingdom. He may retain and quality eight chaplains; whereas a duke is by statute allowed only six.

He has, by common law, the power of probate of wills and testaments, and granting letters of administration.

He has also (by Statute 25 Hen. VIII. c. 21) a power to grant licences and dispensations in all cases formerly fixed for in the court of Rome, and not repugnant to the law of God. He accordingly issues special licences to marry, to hold two livings, &c.; and he exercises the right of conferring degrees.

He is addressed with the title of Grace, and Most Reverend Father in God; and writes himself by Divine Providence; whereas bishops only use by Divine Permission.

He also holds several courts of judicature; as court of arches, court of audience, prerogative court, and court of peculiar.

The archbishop of York has the like rights in his province, as the archbishop of Canterbury. He has precedence of all dukes not of the royal blood; and of all officers of state, except the lord high chancellor. He has also the right of a count palatine over Hexhamshire.

The first archbishop of York was Paulinus, appointed by pope Gregory about the year 622. He had formerly jurisdiction over all the bishops of Scotland; but in the year 1479, pope Sixtus the IV. created the bishop of St. Andrews, archbishop and metropolitan of all Scotland.

ARCH-BUTLER, Archipincerna, the great butler or skinner of the empire.

The king of Bohemia is archibutler; and his business as such is to present the first cup at an imperial entertainment; but he is not obliged to officiate with his crown on.

He has other prerogatives, are, that he precedes all other temporal electors; walks in procession immediately after the emperor, the empress and the electors of Münster and Cologne following next; and in the electoral college he has the third voice, &c. He has for vicar or deputy the hereditary prince of Limbourg.

ARCH-CHAMBERLAIN, Archicamerarius, an officer of the empire; much the same with what in England we call great chamberlain.

The elector of Brandenburg is archchamberlain of the empire, being so appointed by the golden bull; and in that quality, he bears the sceptre before the emperor, which he bears in his coat of arms, walking on the left hand of the elector of Saxony. At some solemnities he also serves on horseback like other electors, carrying a baionet with a towel in his hands; which, slighting, he sets for the emperor to walk. He may proceed with reference to his seat, principalities and towns, as with royal rights; and at his own pleasure impose new tolls, and erect mills on all the rivers.

He has his vicar, or subarch-chamberlain, who is prince of Liebenzell, of the house of Brandenburg, and also bears the sceptre in his arms.

ARCH-CHANCELLOR, Archichancellarius, a great chancellor who anciently presided over the notaries, that is, the secretaries of a court.

This office chiefly obtained in France, under the second races of their kings; and afterwards under the empire, as they had three electors, viz., Germany, Italy, and Arles; they had three arch-chancellors, and hence the three arch-chancellors still subsisting in France; the archbishop of Münster being arch-chancellor of Germany, the archbishop of Cologne of Italy, and the archbishop of Treves of Arles.

The arch-chancellor of Germany is also a dematous director, and also dean or dean of the electoral college. To him it belongs to notify the demit of a Roman emperor to the his co-electors, to pass the diet, to administer the oath of election to the whole body of electors or their envoys, to collect their voices, to proclaim the election, and also to anoint the elected emperor, when the coronation happens within his diocese. At the diet he bears the general direction, in which he acts without control; and before him or his envoys all the states of the empire, as well as of foreign princes, legitimate themselves. He names the vice-chancellor of the empire, or an able vice-chancellor, who is obliged to take an oath to him as well as to the emperor. He also app. into all the chancery officers of the empire, and has supreme jurisdiction over them, and also the inspection of its archives. By him the emperor cautions the aulic council of the empire to be visited. The arch-chancellor of Italy has the second voice at an election of a king of the Romans; and when the emperor is crowned at Aix-la-Chapelle, and in the archbishopric of Cologne, the right of performing the coronations belongs solely to him.

The arch-chancellor of the holy Roman empire in Gaul and Arles is at present only a bare title, without any power belonging to it. At an election of a king of the Romans, he has the first voice, and concomitantly precedes the elector of Cologne.

Bern. de Mallinor, in an express treaty De Archibancelliaris Imperii Romanici, shews that these three archbishops were arch-chancellors before they were electors.—We also read of arch-chancellors of Burgundy, &c.

ARCH-CHANTOR, Archichantor, the chief or president of the clantors of a church.

ARCH-COUNT, Archibonomes, a title anciently given to the Earl of Flanders, on account of his great power and riches.

ARCH-DEACON, Archichadseus, a church officer vested with ecclesiastical jurisdiction over the laity and clergy, next after the bishop, either through the whole diocese, or only a part of it.

He is usually appointed by the bishop himself, and hath a kind of episcopal authority, originally derived from the bishop, but now independent and distinct from his. He therefore visits the clergy, and has a separate court for punishment of offenders by spiritual censures, and for hearing all other causes of ecclesiastical cognizance.

The archdeacon, sometimes also called arch-levee, was originally the first and eldest of the deacons who attended on the bishop: whence his name.

But as the archdeacons, in their original institution, had no
no relation to the diocese, but only to the episcopal see, as it was by feudal right and degree. They attained to the power and honours enjoyed. At their first institution, their proper duties was to attend the bishop at the altar; to direct the deacons and other inferior officers in their several duties, for the orderly performance of divine service; to attend the bishop at ordinations; and to fill him in the management of the revenues of the church; but without any thing that could be called jurisdiction in the present sense of the word, either in the cathedral or out of it. Gibbon.

An archdeacon was not known before the council of Nica; his function has since become a dignity; and even set above that of priests; though anciently it was quiet otherwise. The archdeacon was the bishop's chief minister, for all external concerns, and particularly the administration of the temporalities. He took care that order and decency were observed in divine service; looked to the ornaments and utensils of the church; had the direction of the poor, and inspection of the manners and behaviour of the people: for which reason he was called the bishop's heart and eye; clavis ecclesiae, & cor ecclesiae. The archdeacon was the judge of priests, who had only spiritual functions. But he had no jurisdiction over them till the sixth century; though by that time he was become superior to the archimandrite, or rural dean.

In the tenth century, archdeacons were considered as having jurisdiction in their own right, or attached to their office; with a power of delegating it to others. But from that time measures were taken to lessen their power, by increasing their number. He whose diocese lay in the capital city, took the quality of great arch-deacon.

We have sixty archdeacons in England: their office is to visit every two years in three, to inquire into the reappings and moveables belonging to the church, reform abuses in ecclesiastical matters, and bring the more weighty affairs before the bishop: besides which they have also a power to confound, excommunicate, and in many places to prove wills, and in some to institute to benefices.

It is one part of the archdeacon's office to induce all clerks into their benefices within his jurisdiction; and, by the act of uniformity, he is now obliged to be in priest's order.

Many archdeacons, in old foundations, have, by prescription, their courts and officials, as bishops have. Archdeacons are commonly given by bishops, who do therefore prefer to the same by colation; but if an archdeacon be in the gift of a layman, the patron does present to the bishop, who substitutes in like manner as to another benefice; and then the dean and chapter do conduct him, that is, after some ceremonies, place him in a stall in the cathedral church to which he belongs, whereby he is said to have a place in the choir.

Arch-fabulac, archifabulacienus, the first or chief among the fabulacens, as the archdeacon is among the deacons. In some copies of the Roman ordinal, he is called fabularchideaconus.

ARCHI DRUID, archidruideus, the chief or pontiff of the ancient druids in a nation.

ARCHDUKE. Archidux, a duke vested with some quality, pre-eminence, and authority, above other dukes. The archduke of Austria is a very ancient title. There have also been archdukes of Lorraine and Brandenburg. Austria was erected into a marquisate by Otho I. in favour of his brother-in-law Leopold, or by Henry V in 944, who is said to have bestowed it on Leopold, called the "illustrious," and the first that brought the Austrian countries as an inheritance to his polity, under that dignity; and it was raised into a duchy by Frederic I. in 1156; but we do not well know when, or why, the title archduchy was given it. It is commonly maintained, that Frederic III. called the "Pacific," erected it into an archduchy for his son Maximilian, about the year 1477. Others say, that the title was conferred by the same emperor on Philip, the son of Maximilian; and that he was the first of the Hapsburg family distinguished by the appellation of Archduke. However this be, it is certain, that it has been uniformly used since the fourteenth century, and that considerable privileges are annexed to it.

The principal privileges of this state are, that the archduke shall distribute justice in his own dominions, without appeal; that he shall be judged to have received the investiture of his states, after having demanded it three times; and that he cannot be deprived of his countries, even by the emperor, and the states of the empire: that no affair of the empire can be concluded without his participation; and that he has a power of creating counts, barons, and gentlemen, throughout the whole empire; which are privileges to which the other dukes of the empire are entire strangers. Besides, he is a privy-councillor of the emperor; all attempts against his person are punished as crimes leve majestatis; he is exempt from challenge to single combat; may sit at the assemblies, or be absent, at pleasure; and he has the privilege of being exempt from contributions and public taxes; and ranks immediately after the electors. His subjects cannot be summoned out of his province, upon account of law-suits, or to give evidence, or to receive the investiture of fees; any lands of the empire may be alienated in his favour, even thole that are feudal; in the succession to his states, the right of birth takes place, and upon the failure of males, the females succeed according to the lineal right; and if no heir be found they may dispose of their lands, as they please.

Arch-mansteries, archimanofterium, an appellation sometimes given to the greater monasteries and abbeys.

Archanatry, archanatarius, the primicerius, or chief of the notaries.

This office is supposed by some to have differed from the arch-chancellor, though wherein the difference consists does not appear.

ARCH, πράξις, is a Greek word, importing the beginning.

ARCH, among Physicians, is the beginning or first period of disease.

ARCHE, L, in Geography, a town of France in the department of the Corrèze, and chief place of a canton, in the district of Brive, two leagues south-west of Brive.

ARCHED fountain. See FOUNTAIN.

ARCH, or, or, a, in Architecture, is used to denote a flat arch, less than a semicircular one.

ARCHED legs, is an imperfection in a horse, when being in his natural position, his legs bent forwards; so that his whole leg makes a kind of arch or bow.

This usually arises from excessive labour, whereby the back-bones are made to shrink up, so that the legs remain arched, and naturally tremble after a little riding; though the disorder is natural to some horses.

ARCHEGENTES, formed of apex, chief, and vapor, to conduct, in Mythology, a title of Apollo, under which he had an altar and worship in the ile of Naxos. The coins of this island bore a figure of Apollo's head with this appellation. In the island of Malta, H-resules had the same title, whither his worship was brought from Tyre.

ARCHERION, a name given by the Greeks to the most retired and secret place of their temples, where were deposited...
ford the richest treasurers pertaining to the duties, to whom they were consecrated, and also other valuable articles which they were devious of preserving secure. The Romans initiated the Greeks in this respect, and lodged their public treasure in the temple of Saturn.

ARCHELAUS, in *Ancient Geography*, a town of Cappadocia. Pliny says, that it was a Roman colony, and that it was near the river Halys.—Ato, a city of Judæa built by Archelaus, son of Herod the Great, before his exile. Probable place: it is the well of Jericho, and the Ptolemaic tables fix its situation between Jericho and Scythopolis.

ARCHELAUS, in *Biography*, a Greek philosopher, was born either at Miletus or at Athens. He was a disciple of Anaxagoras at Lampæus, occupied the chair of that philosopher after his death, and may be considered as the last preceptor of the original Ionic school. Afterward he removed to Athens, and with him the Ionic school was removed thither. Here he acquired distinguished reputation by publicly teaching the doctrines of Anaxagoras concerning natural bodies; whence he was denominated the natural philosopher. Among the tenets ascribed to him are the following: that similar parts were the material principles of all things; that the superintending mind, by collecting and uniting these, formed natural bodies; that the universe is infinite; that heat is the cause of action, and cold of rest; that the earth was originally a muddy mass, from which living animals were produced and nourished; and that animals have souls, differing in their powers according to the structure of the bodies in which they reside. In ethics, it was his fundamental principle, that there was in nature no essential distinction between right and wrong, but that it resulted from positive institution, and consequently that all actions were indifferent, till human laws declare them to be good or evil. This doctrine, so subversive of all moral obligation, gained little credit at the time it was proposed; and it has had few advocates either in ancient or in modern times. Amongst the scholars of Archelaus, who were numerous, Socrates was eminently distinguished; and under him philosophy assumed a new character. Diog. Laert. l. ii. § 17. T. ii. p. 89. Cic. Tufcul. Quæst. l. v. c. 4. T. ii. p. 454. ed. Olivet. Plut. de Plat. Philo. l. i. c. 3. T. ii. p. 876. August. de Civ. Det. l. xiii. c. 2. Sidus. Bruck-er's Hist. Phil. by Essef, vol. i. p. 133.

ARCHELAUS, a Chaldean, was bishop of Mefopotamia, and flourished under the emperor Probus, about the year 282. Of the author and authenticity of the work against the Manichees, entitled *The Acts of the Disputation of Archelaus with Mani or Manicheus,* ascribed to him by Jerom and others, and said to be written in the Syriac language, many different opinions are entertained. Ptolæus, on the authority of Heraclian, bishop of Chalcedon, ascribes it to Hegemonian; and hence Cave and others have been induced to consider Hegemonian as the translator. Fabricius conjectures, that this author, whose age is unknown, published an abridgment of the work of Archelaus. Dr. Lardner, who with his usual accuracy and impartiality has examined and weighed the evidence on this subject, inclines to the opinion of Beausobre, who thinks, that this work was originally written in Greek, near the end of the third or beginning of the fourth century; and that it contains some truths digested and mixed with manifest falsehoods. It was edited from a manuscript of the Latin translation found at Cæsarea, and from some fragments of the Greek in Cyril and Ephremius, by Zacagni, in his *Collectanea Monumentum Vet. Rom.* in 1698. The writer's respect for the scriptures now commonly received, says Lardner, is manifest from his very numerous and frequent quotations of them as decisive and of authority in all disputed points of religion. Cave, Bibl. Lit. vol. i. p. 142. Fabr. Bibl. Graec. l. v. c. ii. p. 31. T. v. p. 352. Lardner's Works, vol. i. p. 269.—74.75

ARCHELAUS, king of Judæa properly so called, together with Samaria and Idumæa, was the son of Herod the Great by Martaæ his fifth wife, and appointed by his will to succeed him in the 14th year of Christ, or the 65th year before the vulgar era. Notwithstanding a complimentary speech made by the new king on his accession to the throne, and some grants to the people, a tumult was raised, by which the pachal indemnity for that year was interrupted, and 700 of the mutineers lost their lives. After the suppression of this tumult, Archelaus proceeded to Rome, in order to obtain the ratification of his father's will, and a permanent establishment in the kingdom. Upon his arrival he found his brother Herod Antipas, who was his competitor for the crown, together with several of his family who favoured Herod's pretensions, not so much from love to him as from hatred to Archelaus. An embassy also of fifty of the principal persons of Jerusalem was sent to Rome with a petition to Augustus, that they might be permitted to live according to their own laws under a Roman governor; and these deputies were joined by above 8,000 Jews, that were resident in the city. Archelaus, however, by his humility and address, obtained the grant of half his father's kingdom, including Judæa Proper, Idumæa, and Samaria, under the title of Ethnarch, or governor of a nation, and also a promise of adding that of the king, as soon as he heard that his conduct merited that distinction. St. Matthew indeed (ch. ii. 23) says, "that Archelaus did reign in Judæa," and against this mode of expression there can be no just objection, because his father in his last will had appointed him his successor with the title of king; and Josephus (Antiq. l. 18.) calls him, notwithstanding the limitation of Augustus's decree, the king that succeeded Herod, and he has used (De Bell. l. ii. c. 7) the term reigning for the duration of his government. Archelaus immediately upon his return to Jerusalem began to betray some offensive tokens of his arbitrary and vindictive temper. He first deposed Joazar, and afterwards his successor Eleazar, from the high-priesthood; and, in direct opposition to the Mosiac law, he repudiated his wife Mariamne, and married Glaphyra, the widow of his brother Alexander, though she had several children. In other respects, his reign was tyrannical, and, Antipater excepted, he seems to have been the bane of all Herod's sons; and therefore in the tenth year of his government, A.D. 6, or 7, the chief of the Jews and Samaritans, not being able any longer to endure his cruelty and tyranny, presented complaints against him to Cæsar. Augustus sent for him and some of his chief accusers to Rome, and having heard both the charge and the defense, compelled him to be banished to Vienna or Vienna in Gaul, where he died, and all his goods to be confiscated. Upon this, Judæa was reduced to a province of the empire and annexed to Syria; and Cyrenæus, a consummated person, was sent by Cæsar to make an attempt in Syria, and to seize the estate of Archelaus. From different statements given by Josephus in his war (De Bell. l. ii. c. 7. § 3), Antiquities (l. xvii. c. 15. § 3), and Life (§ 1.), there is reason to conclude, that Archelaus reigned nine years complete, and that the tenth year was current when he was banished. And Dio (l. lv. p. 567) places Archelaus's banishment in the 759th year of Rome. If Herod did not die till the beginning of A. U. 753, the ninth year of Archelaus's reign could not be completed in the 759th year of Rome; but if it be supposed that Herod died in the beginning of A. U. 750, Josephus
A R C

A R C


Archelaus, king of Macedon, was the natural son of Pericles II; and though he obtained the crown by assassinating the lawful heirs, he determined to maintain it with valor and glory. With this view he fortified the principal towns of Macedon, dispirited its armies, and fitted out armed ships, which was a kind of force to which the Macedonians had not been accustomed. He also distinguished himself as a patron of literature and of the arts, and some of the most learned men of Greece frequented his court; with them he conversed in the most familiar manner, and some of his sayings at table are recorded amongst the apophthegms of antiquity. Euripides lived with him on terms of peculiar intimacy; and this is the more surprising, if we credit the tradition that he refused to write a tragedy, at his request, on some subject relating to himself, and offered this apology, that he did not wish to represent the enormities of a tyrant. When Socrates was invited by him, he declined paying him that respect, alleging, as Seneca says, "that he could not go to see a man from whom he might receive favours, without being able to return the like." and it is said, that Socrates enjoyed the great expense which he bestowed on his palace, which was painted by Zeuxis, whilst he had taken no pains to adorn his mind. Some have pretended that Aristophanes wrote his comedy of the Clouds, from envy of Socrates, because Archelaus took more notice of this philosopher than of himself. Archelaus instilled facetious and scenic games in honour of Jupiter and the nine muses; and a day was devoted to each muse. He also sent chariots to the Olympic and Pythonian games. The manner of his death and the duration of his reign are not precisely ascertained. It is generally supposed that he was assassinated by Craterus, the object of his laudable passion, in consequence of an affront. According to Diodorus Siculus, he began his reign in the 3d year of the 93d Olympiad, 406 years before Christ, and reigned seven years. Others have extended it to fourteen, sixteen, and even twenty-four years. Gen. Dict. Anc. Un. Hist. vol. iii. p. 269.

Archelaus, a famous sculptor, the son of Apollonius, was born at Priene, a town of Ionia. The marble monument of the apothecary of Homer is ascribed to him, and such is its distinguishing excellence, that, independently of his poems, it would have injured his immortality. It was dug up in 1558 in a field belonging to the princes of Colon, where it is said the emperor Claudius, in whose time it was executed, had a house of pleasur.

Archemorus, in Ancient Geography, a river of Greece in the Peloponnesus, which separated the territories of Sicily from those of Corinth. It is called Nema by Strabo.

Archery. Archery, is used by some to denote the art of transmuting less perfect metals into the more perfect. In which sense archery differs from alchemy, as a part from the whole.

Archenda, in the Ancient Physic, a kind of powder prepared of alecanum and leaves of the Egyptian Liegustrum, wherewith the people smeared their feet after bathing, as a preservative against sweating and rheum.

Archier, John, in Biography, an English physician, who practiced in London in the reign of Charles the Second, author of a manual, Every man his own physician, published in 1673; and though little noticed, it appears to have been not void of ingenuity. At the end of his works, he builds of three inventions, a vapour bath, of considerable efficacy in rheumatism, and various other diseases; an even "which doth with a small faggot bake, distil, boil a pot, or fly, all with the same charge of fire, time, and labour." and a chariot, so contrived, that the person sitting in it may move it at pleasure. It is not improbable that some of our modern inventors took hints from this book for their contrivances.

Archier, Edward, M.D. in Biography, was born in the borough of Southwark, in London, about the year 1712. He received his medical education partly at Edinburgh, and partly at Leyden, at which latter place he graduated in the year 1746, and gave for his thesis a dissertation De Scorbuto. In the year 1748 he was elected physician to the small-pox hospital in Cold Bath Fields, in the place of Dr. Poole, the first physician to that institution; and in 1752 he was admitted licentiate of the college of physicians, London. In the year 1752, the committee of the small-pox hospital, consisting of thirteen of the governors, prevailed on him to suffer a whole length portrait of him to be painted by Mr. Pine, for which they paid one hundred guineas, and placed it in the court-room as a mark of their respect, and of the high opinion they entertained of his abilities, and of his zeal for the institution. This, though he then accepted, yet he was mindful to return it; and therefore ordered by his will, that each of the contributors should be paid back the money they had advanced, with interest to the time of its being repaired. He also left 500l. to the hospital, where he refused to the time of his death, which happened on the 28th of April 1789, having now been physician to the institution forty-one years.

He was of an humane and benevolent disposition, and possesting an ample fortune, was never solicitous about practice; and during the latter part of his life, entirely declined all business, excepting his attendance on the patients in the hospital. To this he might in part be inclined from his corpulence, and from the nature of the complaint; a dropsy in the chelid, to which he at length fell a sacrifice, and which must make all motion particularly troublesome to him. He was a man of considerable learning, and had collected a magnificent and valuable library. This was sold a few months after his death by Meffrs. Leigh and Sothyby. He was buried at Woodford in Essex.

Archers, a kind of militia or fieldjery, armed with bows and arrows. The word is formed of arceus, a bow; whence arcarius, and even arque, and archite, as they are also denominated in the corrupt state of the Latin tongue. Archers were much employed in former times; but they are now laid aside, excepting in Turkey, and some of the eastern countries; where there are companies of archers still subsisting in their armies; and with which they did terrible execution at the battle of Lepanto. As an amusing exercise and trial of skill, the occasional practice of archery is still continued in many parts of Europe, and even in our own country.

The name archer is still retained even where the thing is lost: thus in France, the officers who attend the lieutenants de police, and provolets, to make captures, seizures, arrests, &c. are called archers; though their arms be only halberds or carabinies. In this sense they lay, the archers of the grand prefet de l'hotel; of the prefet des marchands; the city archers; the archers du guet, or of the watch, &c. Small parties of archers, called also gens de martieenne, have been employed to patrol on the great roads, to securn them against robbers. The carriages of Lyons, &c. are always escorted by...
by a party of archers. To the diligence of these archers, or marcher's men, it has been partly owing, that parties have travelled in all parts of France in such security; and that there have been fewer robberies on the highway in that whole kingdom in a year, than about London in a week. They have all their archers des poivres, archers of the foot, whose office it is to force such beggars as they find in the streets, and carry them to the hospitals.

ARCHERY, the art or exercise of shooting with bow and arrow.

Among the nations of antiquity, the bow was a principal implement of war. Its use may be traced to the very earlist times, and followed in the history of almost every country. In this article, however, we shall principally confine ourselves to the practice of archers in England, where it was once carried to a degree of perfection that it is even unrivalled.

Our ancestors used the bow for a double purpose: in time of war it was a dreadful instrument of slaughter; and in peace an object of amusement. That both the Anglo-Saxons and the Danes were well acquainted with it, is certain; and they must have derived its knowledge of it at an early period; as the Scandinavian fields, when praising the heroes of their country, enumerate among their acquisitions a superiority of skill in handling the bow. Among the Saxons and the Danes, however, it seems only to have been used for the purposes of food or pastime; and we are perhaps indebted to the Norman conquest for its introduction as a military weapon. The bow employed among the Saxons will be accurately described hereafter. That which the Normans used at the battle of Hastings was the arbalist or cross-bow; while no mention is made of archers on the side of Harold.

The exact time when shooting with the Long bow began is unsettled; and our chroniclers do not mention the use of archery as applied either to one bow or the other, till the death of King Richard the third in 1485, who was killed at the castle of Chaluz by an arrow, said to have proceeded from a cross-bow. From this time till that of Edward the second, our notices of archery are scanty; the king's baistarius, or cross-bow-man, is often mentioned, and it is in this reign that we met with sagittarius, a term which perhaps has particular relation to the shooters with the long-bow. Many of the soldiers employed in the unsuccessful expedition against Scotland in 1323 were of this description, as well as those who are sent the next year to the relief of Aquitain. Under Edward III, the glory of the English long-bow was at its zenith; and that monarch appears to have been very anxious that its lustre should remain unimpaired. In 1342 a precept was issued to the sheriffs of most counties in England, for providing 500 white bows and as many bundles of arrows, for the then intended war against France. And the king afterwards ordered a letter of complaint to be directed to the sheriffs of London, declaring that the skill in shooting with arrows was almost totally laid aside for the pursuit of various unlawful and unlawful games; and commanding them not only to prevent such idle practices in future, but to see that the leisure time upon holidays was spent in the recreations of archery. The battle of Crécy, in 1346, was attended by a circumstance that seems to have a particular reference to the use of the long-bow among the English. Previously to the battle, a shower of rain so slackened the flight of the Genoese cross-bows, that they became almost unserviceable; while the English were still capable of annoying their enemies with success. Both this victory, and that of Poitiers, ten years afterwards, were chiefly ascribed to the English in their archery. The decisive victory of 1415, against the Scots, in 1422, was achieved by them entirely; and the earl of Douglas found to his cost, that the English arrows were so swift and strong, and drenched with so much force, that no armour could resist them. In 1503, at the battle of Shrewsbury, where King Richard was slain, neither the English nor the Welsh fared ill, for they both made terrible execution: and the victory of Agincourt, in 1415, was entirely owing to their skill. Yet, notwithstanding the advantages which had evidently accrued to the English from the use of the long-bow, the French were still attached to the arbalist; for which reason Henry V, as duke of Normandy, confirmed the charters and privileges of the halleter, who had been long established as a fraternity at Rouen. Under Edward IV, an ordinance was made, that every Englishman and Irishman dwelling in England, should have a bow of his own height, to be made of yew, yew, hazel, ash, or oak. There were some yeomen good according to their power. Butts, alas, or mounds of earth, as ranges, were directed to be made in every township, and the inhabitants to practice archery, under certain penalties. In the sixteenth century of the date, it appears by Kyn’s Pedlar, that one thousand archers were to be sent to the doke of Burgundy, who was set at six pence a day: a circumstance which, considering the value of money at that time, proves very strongly the great estimation in which English archers were held: and even afterwards, when the use of what we now call Artillery gained ground, that of the bow and arrow were by no means neglected. In the 10th of Henry VII and the 6th and 25th of Henry VIII. the use of the cross-bow was entirely forbidden, and by the last-mentioned statute a penalty of ten pounds was to be inflicted on every one in whose house a cross-bow might be found. Other statutes, in the early part of Henry’s reign, afforded great encouragement to archery with the long-bow. One in his third year directs that every father shall provide a bow and two arrows for his son, when he shall be seven years old: and another was enacted in his 30th year to reduce the price of bows. Edward VI, as we learn from his own journal, was fond of archery; and in the succeeding reign, the statutes of Henry VIII for its promotion were much commended, with directions to enforce them. Under Elizabeth, James, and Charles I. other statutes were ordained. In 1566 the price of bows was again regulated; and in 1571 it was enacted, that bow flaves should be brought from the Hanse towns and the eastward. Ten years after this, a society of archers existed in London, who, from the fame which Arthur, elder brother to Henry VIII., had acquired at the long bow, were termed prince Arthur’s knights. John Lyon, who founded Harrow school in 1570, two years before his death, drew up rules for its direction, whereby the amusements of the scholars were confined to “driving a top, tolling a hand ball, running, and shooting;” the last mentioned diversion is in a manner reflect on by the founder, who requires all parents to furnish their children with bow-strings, shafts, and breeches, to exercise shooting.” A silver arrow used, till within these few years, to be shot for by the young gentlemen of Harrow school.

The last time the legislature interfered for the protection of archery, seems to have been in 1633, when Charles 1. issued a commission for preventing the fields near London being so enclosed as to intercept the necessary and profitable exercise of shooting; as also to lower the mounds where they prevented the view from one mark to another. The same commission directs that bridges should be thrown over...
over the dikes, and that all shooting marks which had been removed should be restored. During the grand rebellion, the practice of archery seems to have received no encouragement, but rather to have fallen into disrepute. Sir William Davenant, in a mock poem, entitled "the long vacation in London," describes the attorneys and proctors as making matches in Emsbury Fields:

"With loyines in canvas bow-cade tied,  
Where arrows stuck with mickle pride;  
Like ghosts of Adam Bell and Cymme,  
Soll sets for fear they'll shoot at him."

Adam Bell and Clym of the Cloagh were noted outlaws, whose skill in archery rendered them as famous in the north of England, as Robin Hood and his contemporaries were in the midland counties. In 1676, Catharine of Portugal, queen of Charles II., by the contributions of Sir Edward Hungerford and others, presented a silver badge, weighing 25 ounces, to the marshal of the archers' fraternity, on which was represented an archer drawing the string of a long-bow (in the proper manner) to his ear; with the following inscription: "Regina Catharina Sagittatarii." The supporters, two bowmen with the arms of England and Portugal. In 1689, there was a most magnificent cavalcade and entertainment given by the archers of Emsbury. Charles II. was present on this occasion, but the day being rainy, he was obliged soon to leave the field. Archery had by this time degenerated. From the glory of British warriors, it dwindled to a mere manly recreation; and the very name of archer seemed forgotten, till, in 1753, targets were erected in Emsbury-fields, during the Easter and Whit-Fun holidays, when the bow-shooter was filled captain for the ensuing year, and the second, lieutenant. Of the original members of this society, there were only two remaining when Mr. Barrington compiled his observations in the Archaeologia. It is now incorporated with the archers' division of the honourable the Artillery Company.

Archery, with the long bow, continues to be used as a manly exercise by the inhabitants of Geneva, and in many parts of Flanders; nor is it totally neglected in Great Britain. The most noted society of this kind, now existing, is the Royal Company of Archers in Scotland, who arose about the time of James I. During the last century, in England, many smaller societies had their origin, which have now dwindled. The chief that remain are the Archers' division of the Artillery Company, the Toxophiliæ, and the Kentish bowmen.

How effectual the long-bow must have been before the use of fire-arms, need hardly be suggested; and the neglect into which it occasionally fell must be solely attributed to the length of time that was required to train an expert archer, of which the preambles to many of our statutes are sufficient evidence. Why it continued in estimation so long after the use of gunpowder, will excite no astonishment in those who remember, that, till the last century, muskets were among the unwieldiest instruments of war; they were never used without a retail, had no bayonets, and could be discharged not so frequently as at present. Strutt's Sports and Pastimes, Archael. vol. vii. p. 46, &c. Henry's Hist. Brit. Ellis's Hist. of Shorestitch. See Arrow, Artillery, and Bow.

Archery, in our Ancient Caftans, a service of keeping a bow for the use of the lord to defend his castle.

ARCHES, or Court of Archers. See Court of Archers.

Arches, in Heraldry, are borne in coat-armour, both double and single; and they are drawn as springing from, or supported by, pillars.

Vol. II.
poet, lived about the year 60 before Christ, and is better known by the eloquent oration pronounced by Cicero for vindicating his right to the citizenship of Rome, than by the fragments of his works now extant. Cicero (pro Archia, apud oper. t. v. p. 297; ed. Olivet.) informs us, that he was a native of Antioch, and that his poetical talents, even in his youth, were generally acknowledged and admired in all the Greek cities of Asia and Europe which he visited. At Rome, where he arrived under the Confulships of Marius and Catullus, about the year before Christ 104, he was first received by the Lucullan family, and afterward highly favoured by the Metelli, Catulli, Cralli, and other persons of the most distinguished rank and character. Cicero speaks in terms of high commendation of his powers, which probably confided rather in facility and copiousness of verbling, than in the other superior qualities of a poet; and he says, that by previous study and meditation, his performances were equal to those of antiquity. Archias wrote a poem on the Cimbrian war, and began another on the confidate of Cicero, which was left unfinished. Some of his epigrams, now extant, are prefixed in the "Anthologia."

ARCHIATER. Archiatrus, formed of 

archia, princeipum, chief, and 

mures, medioces, a physician, properly denotes the chief physician of a prince who retains several.

On the real signification of the term, or on the office and denomination of the Archiater, authors are not agreed: some, as Heronimus Mercurialis, conferring it as a title given to the physician to the emperor or prince; others, as Alciatus, Melbomius, &c., as belonging to the principal physician in the country, who had some power or authority over the other physicians. It is remarkable that the word does not occur in Pliny, though he frequently mentions physicians both of his own and of earlier times, some of whom were said to have been dignified with the title; and that Galen, who had the care of the health of Marcus Aurelius and his sons, is no where called by it. Perhaps, as Le Clerc conjectures, "Histoire de Medicine," p. 593, the office did not exist until after their time: for though, he observes, we find the title affixed to the works of writers who lived anterior to the time of Pliny, it may be that the copies we are in possession of were written much later, and the transcribers may have honoured the authors with this title, to enhance the value of their works, and incense the sale of their manuscripts. However this may be, the office was under the later emperors for the greater honour, and its authority and privileges were sanctioned by the laws. Le Clerc, who has written a long dissertation on the subject, "Histoire de Medecins," p. 593, cites several laws concerning them: by these we find they had salaries appointed them, which were paid by the prince, or by the cities or provinces where they were established. They were exempt from all taxes through the whole of the Roman empire; their persons were protected; they were not obliged to entertain soldiers, &c. On the other hand, the Archiaters, not immediately in the service of the court, were obliged to give attendance to all sick persons indiscriminately, without exacting any fee for their attendance. They were also frequently enabled and made counsellors of state, an office or dignity not infrequently at this present time bestowed by many of the princes of Europe upon their physicians. Dr. Dimidale, who went to Ruffia in the year 1765, to inoculate the late emperors and the grand duke, was made physician and actual counsellor of state to his imperial majesty, and baron of the whole Ruffian empire.

ARCHIDANUS, the fon and successor of Agesilaus the Great, king of Sparta, commanded the Spartan army during the life of his father, before Christ 507, and obtained a victory over the Arcadians, without the loss of a single Lacedaemonian, whence this was called "the tearless battle." When Epanomondas afterwards attacked Sparta, he obliged the Theban general to retire. He succeeded his father in the throne in the year before Christ 361; and, in the sacred war, succoured the Phocians. To a bawdy message received from Philip of Macedon, who was elated with his successes, Archidamus replied, that "if he would measure his shadow, he would find it no longer than before:" and when he was asked how far the dominion of Sparta extended, his answer (indicating more his magnanimity than his sense of justice) was, "as far as they can stretch their hands." His life was prematurely terminated in a combat near the city of Mandonia in Italy, between the Messapians and Tarentines, to which Swabia he was destined by a public decree of his country, after a reign of fifteen years; and his character was distinguished by valour and public spirit. His statue was erected in the temple of Jupiter Olympius, an honour which none of the Spartan kings had enjoyed except himself, and which Paullanas supposed was granted to him because he died fighting against the Barbarians, and did not receive those eulogial honours which had been given to all his predecessors. He was succeeded by his son Ages. Aug. Un. Hist. vol. v. p. 48.

ARCHIDAPIFER, or chieffewer, is a great officer of the empire.

The elector of Bavaria is archidapifer. —The palace of the Rilene at one time pretended this office was annexed to his patriciate, but he has since desisted. At the peace of Baden, the office was finally restored to Bavaria. At the coronation of the emperor he carries before him the monte of the empire, which by virtue of his office he also bears in his arms, ranks next to Bohemia, places on the imperial table the silver dishes, and serves up the first course.

ARCHIDIUM, in Ancient Geography, a town of the island of Crete, according to Pauflanis, in Arcad.

ARCHIDONA, in Geography, a town of Spain, in the province of Andalusia, with an ancient caftle of Antequera.—Alfo, a town of South America, in Peru, built by the Spaniards, in the province of Chinchis.

ARCHEROSYNES, in the Grecian Antiquity, a highpriest vested with authority over the rest of the priests, and appointed to execute the more sacred and mytcrionous rites of religion.

ARCHIGALLUS, in Antiquity, the high-priest of Cebyle, or the chief of the cunouch-priests of that goddes, called Gallis. This officer was always chosen from among the most distinguished families.

ARCHIGENES APAMEUS, fo called from Apamea, the place of his birth, in Biography, a physician of eminence in the time of the emperors Donatian and Trajan. Galen speaks of him as delivering high credit for his diligence and ingenuity, and cites several of his works with commendation. Haller gives an epitome of his doctrines, and though he commends his practice in the care of many diseases, yet, from his fondness for amulets and charms, places him among the empirics. That he was in high repute, however, cannot be doubted, Juvenal having mentioned him several times in his satires, and always with honour. "Ocyus Archygenem quere, atque ene quad Mithridates compluit." Various fragments of his writings exist in the collections of Actius and Amida. Besides his writings on the subject of pharmacy, he also wrote treatises on local afeictions, on the cure of chronic diseases, on the nature and types of fevers, on pulses, &c. Le Clerc Hil. de la Med.

ARCHIGERONTES, in Antiquity, the chiefs or masters
markets of the several companies of artisans at Alexandria.

Some have mistaken the archigernotes for the arch-priests, appointed to take the confessions of those who were condemned to the mines.

ARCHIGEURNUS, ARCHIGERBERTA, OR ARCHIGERONI, in Antiquity, the commander of the imperial fleet, or that which the emperor was abroad of.

Some have contended the office of archigernus with that of prefeflaloctus, or admiral, but the former was under the command of the latter.

Potter takes the proper office of the archigernotes to have been to manage the marine affairs, to provide commodious harbours, and order all things relating to the failing of the fleet, except what related to war. Vid. Diod. Sicul. 26, 51.

ARCHIL, ARGEL, ARGLIA, RECOLA, LICORIN, RECOLE of Linn unus, or Orsillo, is a moat of a lightish or dark grey colour, which grows on the rocks in many parts of the Archipelago, and in the Canary and Cape de Verd islands; and, according to Linn unus's account, on the Wtern Coast of England. It belongs to the third of Dillenius's genus of corallides, and to the lichen fraunclofus of Linn unus. This moss grows uprightly, partly in finge, partly in double stems, which are about two inches in height; when it is old, these stems are crowned with a button, sometimes round and sometimes of a flat form, which Tournefort very properly compares to the excrences on the arms of the Sepia. The dark red palte formed of this moss has in commerce the fame name of Archil or Argel, and is much used in dying; that well-known substance called Lacmus, or Litmus, is also made of it. See Litmus. Those who prepare it for the use of the dyer grind it betwixt flones, so as to bruife it thoroughly without reducing it to powder, and then moisten it occasionally with strong spirit of urine, or urine itself, mixed with quicklime. Alkales extract a violent colour. In a few days it acquires a purplish red, and at length a blue colour. The dyers foldom use this drug by itself, because of its dearness and the perishableness of its beauty; but they chiefly employ it to give a bloom to other colours, as pinks, &c. and this is done by passing the dyed cloth, or silk, through hot water lightly impregnated with the archil. However, the bloom thus comminicated soon decays upon being exposed to the air; though, M. Hellot says, that by adding a small quantity of the solution of tin, the colour obtained from this drug changes towards a scarlet, and gives a durable dye. Prepared archil will readily yield its colour to water, to volatile spirits, and to spirit of wine; and it is accordingly used to colour the spirits of thermometers; but being confined from the air, the spirits lose their colour, and as M. l'abbé Nollet observes, regain it upon being exposed to the air. He repeated the experiment severall times with succefs. A solution of archil in water gives a durable stain of a beautiful violet or purplish blue colour to marble. M. du Fay informs us that he has seen pieces of marble stained with it, that preferred their colour for two years, without any sensible change. It sinks deep into the marble, and makes it more brittle. The dye yielded by this substance, it is suppos'd, was known as early as the days of Theophrastus. Theophrastus, Dioscorides, and Pliny, give the name of "Phycos thallafion" or "potion," to a moss which grew on the rocks of different islands, and particularly on those of Crete and Candiia. This moss had, in their time, been long used for dying wool, and the colour it gave, when fresh, was so beautiful, that it excelled the ancient purple, which was not red, as many suppose, but violet, Playf says, that with this substance the dyers gave the ground or frill tint to those cloths which they intended to dye with the coaly purple. Thus Hardouin and others understand the words "conchylis subfubritum," which the French dyers express by the phrase "dinner le pied." This "phycos thallafion" is suppos'd to Dillenius to be our argel; for at present, no species is known which communicates so excellent a colour, and which corresponds so nearly with the description of Theophrastus. Besides, it is still collected in the Grecian islands, and it appears that it has been used there since the earliest ages. Tournefort found this moss in the island Amsros, now called Mordo; and in his time it was sent to England and Alexandria, at the rate of 10 or 12 dollars per hundred weight; and he adds, that it was common in the other islands. He also states, from Sidiás, Julius Pollux, and other ancient writers, that this island was once celebrated for a kind of red linens, which in commerce had the name of the island; and he conjectures that it was dyed with this moss. Hence Beckman (Hist. Inventions, vol. i. p. 61.) concludes, that our argel was not unknown to the ancient Grecians; and he apprehends, that the Europeans, and frill of all the Florentines, were made acquainted with this dye-fluff, and its use, in the beginning of the fourteenth century. To this purpose he observes, that among the oldest and principal Florentine families is that known under the name of the Oricelarii, Rucellarii, or Rucellai; one of whom, in the year 1300, carried on a great trade in the Levant, and returning with great wealth to Florence, first made known in Europe, the art of dyeing with argel; and from this useful invention the family received the name of Oricelarii, from which, in process of time, was formed Rucellai. After that period, the Italians procured argel from the Levant for themselves, and afterwards for all Europe. But since the discovery of the Canary islands, about the end of the fourteenth or beginning of the fifteenth century, the greater part of this substance has been procured from them. In the islands of Canary, Teneriffe, and Palma, this moss belongs to the crown; and in 1730, it was let by the King of Spain for 1700 piastras. In the rest of the islands it belongs to private proprietors, who cause it to be collected on their own account. About the end of the year 1730, the captain of an English vessel brought a bag of argel from the Cape de Verd islands to Santa Cruz, by way of trial; and discovering his secret to some Spanish and Genoese merchants, they fitted out a ship in 1731 for these islands, whence they brought it in large quantities. The argel of the Cape de Verd island appears larger, richer, and longer than that of the Canaries, which, perhaps, is owing to its not being collected every year. Adamson, in 1749, found the greater part of the rocks in Magdalene island, near Senegal, covered with this moss. Although most of our argel is at present procured from the Canary and Cape de Verd islands, a considerable quantity is also brought from the Levant, from Sicily, and from the coast of Barbary; and some years ago the English merchants at Lesthorne, caufed it to be collected in the island of Eiba, and paid for it a high price. Our dyers do not purchase raw argel, but a pale made of it, which the French call orfelle en pate. The preparation of it was for a long time kept secret by the Florentines: the person who is suppos'd to have first made it known was Rolletti, a dyer at Florence. Some information concerning it was afterwards communicated by Invernati, and Micheli the botanist. In latter times this art has been much praticed in France, England, and Holland. Many druggists, instead of keeping this pale in a moist flate with urine, as they ought to do, suffer it to dry, and it has then the appearance
of lyric poetry, which required this mixture, and which, after his time, became a species of versification wholly distinct from heroic. To Archilochus is likewise ascribed the invention of epokes, considered as denoting small lyric poems, composed of trimeter-iambics, of six feet, and dimeters of four feet, alternately; such are those of the fifth book of the odes of Horace. Archilochus is generally ranked among the first victors of the Pythian games; and Pindar says, that he wrote hymns in praise of the gods and heroes. One of them in praise of Hercules, gained for him the acclamations of all Greece; for he sung it in full affably of the Olympic games, and received in recompence from the judges, the crown of victory. This hymn, or ode, was afterwards sung in honour of every victor at Olympia, who had no poet to celebrate his particular exploits. The names of Homer, and of Archilochus, were equally revered and celebrated in Greece, as the two most excellent poets produced by the nation.

Cicero ranks him with poets of the first class, and in his "Epistles," (x. 16, ad Atticum) he says, that the Grammarian Artillophanes used to say, that the longest poem of Archilochus was, in his estimation, the most excellent of those composed by the Greeks, and, as he said, to be an imitator of the Greek bard, as to his style and manner, but not in his malignity; and he says, (Art. Poet.) that he was armed by the violence of his resentment with iambics; "Archilochus propriis rabies arnavit iambos." Ovid likewise refers to Archilochus: Paterculus and Quinctius below great priase on his poetry. The latter (i. e. c. 1.) says of him, that he had an uncommon force of expression, abounding with bold thoughts, and short but keen and piercing strokes, and that his lyke was singularly strong and nervous. The estimation in which he was held among the Greeks may be inferred from the conduct of the Delphic oracle, which expelled from the temple of Apollo, Cerax of Naxos, by whom he was killed, though he did it in open war. His fates, however, were not only unjustifiably severe, but offenсively licentious and indecent; and on this account his poems were prohibited at Sparta, as being more likely to corrupt the hearts and manners of young people, than to be useful in cultivating their understandings. Of the force of his fates, the following instance is frequently alluded to by the ancients. Lycomeaus, who had promised him his daughter in marriage, and who had violated his contract, together with his family, was rendered so infamous by a torrent of abuse and defamation, that he terminated his life by the halter; and one, if not all of his daughters, followed his example. Indeed, the rage of Archilochus" was proverbial in antiquity, which compared the provoking of this satyril to the treading upon a serpent. In the army, into which he entered, Archilochus incurred a degree of ignominy, which probably contributed to imbitter the resentment, and malignity of his writings. When he faced his life by his cowardly retreat in the first battle in which he was engaged, he alleged in excuse of his dastardly conduct; "I have lost my buckler, but I have saved my life; and it is much more easy to get a new buckler, than a new excellence." Some fragments of his writings may be found in the "Poeta Graeca" Generv. 1636 and 1614, 2 vol. folio. Nouv. Dict. Hillor. Burney's Hist. Mufc, vol. i. p. 303.

ARCHILEUTO, or ARCHILUTE, a large hute, differing little from the Thorobs, on which thorough-bafs used to be played in accompanying the voice. At the beginning of the last century, it was the favourite instrument all over Europe. Arrignonius, a famous lutetian, was employed in all Handel's early operas. And the office of lutetint remained till
till the last century in his majesty's chapel at St. James's. Gilber was the last who occupied the place and performed the duty.

ARCHIMAGUS, in the Ancient Persian Religion, the chief priest or head of the order of magi. The archimagus answered to the high-priest among the Jews, or the pope now among the Romans; being the head of the whole religion. The archimagus reigned in the fire temple, a place held in the same veneration among them as the temple of Mecca among the Mahometans, every person of the sect being under a kind of obligation to make a pilgrimage to it once in their lives. Zoroaster is ranked as the first archimagus, and he erected the first temple in the city of Balch. Here it remained till the seventh century, when the followers of Zoroaster, being driven by the Mahometans into Carmania, or Kerman, a southern province of Persia, another building of the same kind was reared, and there it hath continued to this day. The fire temple at Balch, was rebuilt by Darius Hystaspis, with a grandeur more suitable to its dignity, as it was the patriarchal temple of the sect; and from the name of its reboiler it was afterwards called Anzur Guhlap, i.e. the fire temple of Darius Hystaspis. In order to preserve its reputation, he added the office and title of archimagus, and as Persity immutable, he gave orders before his death, that among his other titles it should be engraved on his monument, that he was "a master of the Magians," which plainly implies the head of the sect among them. From hence it seems to have proceeded, that the kings of Persia were ever after regarded as the sacred and divine beings, and were always intimated into the sacred order of the Magians, before they were inaugurated into the kingdom. Prit. Conc. vol. i. p. 315, 322.

ARCHIMANDRITE, the superior of a monastery; amounting to what we now call Abbot.

Coovraivas observes, that the word literally denotes the chief or leader of a flock; in which sense it may be applied to any ecclesiastical superior, and accordingly we find the name sometimes attributed to archbishops. But among the Greeks, by whom it is chiefly used, it is always confined to the chief of an abbey. According to Lather Simon, man- drite is a Syrian term, signifying a solitary monk; and consequently archimandrite is the chief of monks of this description. In the Greek church, the archimandrite is the second dignity under the patriarch.

ARCHIMEDES, in Biography, one of the most celebrated mathematicians of antiquity, was born at Syracuse, according to Torelli, in the second year of the 132d Olympiad, corresponding to the 257th year before Christ; or, according to Rivalus, who has taken considerable pains in ascertaining the true year of his birth, the second year of the 132d Olympiad, answering to the 2918 year before Christ. If we may rely on the authority of Tzetzes, he lived 75 years; and Blair in his chronology, refers his death to the first year of the 142d Olympiad, or the 212th year before Christ. Plutarch informs us, that he was nearly related, by his father, to Hiero the Syracusian king, with whom he lived in habits of the most intimate friendship and intercourse; but his mother was of obscure origin; and this circumstance may probably account for the degrading terms "humblem homunculum," which Cicero applies to him in the fifth book of his Tufcian Questions, Oper. t. ii. p. 474. ed. Oliven. Unallured by those prospects of preferment which his connexion with Hiero might have presented, Archimedes devoted himself, with uncommon ardour and singular success, to the study of geometry, in his youth; and in his mature years he travelled into Egypt, whether the Greeks generally returned in the pursuit of science. After an absence of several years, which he spent in the society of Conon, and other eminent men, and during which time he exhibited very promising indications of his future fame, he returned to his own country, where he indefatigably prosecuted that course of application to mathematical and mechanical sciences, which led to the discussions and discoveries recorded in his works. Such, indeed, were the ardour and industry of his application, that he professed his studies, to the neglect of both food and sleep, and improved the most trifling circumstance that occurred into an occasion of making very important and useful discoveries. At the bath, it is said, he frequently drew geometrical figures in the ashes, or when, according to the custom, he was anointed, upon his own body. Of the ardour of his mind in the pursuit of science an instance occurs under the article HIERO'S CROWN; and was also manifest in his well-known declaration, pronounced in conference of his accurate acquaintance with the powers of the lever, "δίδονα βασιλεύοντα μου ταύτα, γι' αυτό επόμενον τινα μου αναθέματα," i.e. "Give me a place upon which to stand, and I will move the earth." Such was the pleasure he derived from having discovered the proportion between the sphere and its circumscribed cylinder, that as a memorial of this discovery, he requested his friends to place upon his tomb a cylinder containing a sphere, with an inscription expressing the proportion of the one to the other. Cicero, when he was a senator in Sicily, about 140 years after the death of Archimedes, discovered this monument in a neglected state, and, with great difficulty, wrought it up with brambles and brambles, which he ordered to be cleared away. Vit. Opera, ab epist. As an evidence to Hiero of the smouldering effect of mechanical powers, Archimedes is said to have drawn towards him, by means of a peal and pulleys, a galley manned and loaded, which lay in the shore. But his mechanical knowledge was applied to more substantial use, at the time when Syracuse was besieged by the confid Marcellus; for he thus contrived to arrest the efforts of the besiegers for eight months. Plutarch (in Marcell.) and Livy (l. xxiv. c. 34.) inform us, that, whether the vessels of the enemy were nearer to the walls of the city, or more distant from them, Archimedes annoyed them. When they approached the rampart, he suspended long branches, which probably acted like levers, and struck the galley's with a force that sunk them; by means of grappling hooks at the extremities of other levers, he raised up vessels in the air, and then dashed them to pieces against the walls or projecting rocks. With the they were more remote, he used instruments which threw large stones, that demolished the ships or the machines employed in the siege. For the use he made of his burning mirrors, see BURNING-GIPE.

Besides other inventions which Diodorus Siculus (l. v.) ascribes to Archimedes, he mentions that of the cochlear, or screw pump, which he communicated to the Egyptians. Livy also (l. xxiv. c. 23) records his distinguished excellence as an observer of the heavenly bodies and his talent for the contrivance and construction of warlike machines. His ingenuity in the solution of problems was, in Cicero's time, become proverbial, for in a letter to Atticus (l. xiii. ep. 25.), he alludes to the "προφήτης Αρχιμήδης," or "Archimedian problem," as one that was of singularly difficult solution. His machine for exhibiting the motions of the celestial bodies is either referred to or more expressly mentioned by the Latin poets. To this purpose Silvius Italicus (l. xiv. v. 341, p. 717, ed. Drakenb.) extols him: "Vir fuit: Helmiacis deors immortalis colonis, Ingenio facile ante aequor telluris alumnus, Nudus opus; sed cui celum terraeque patent." Claudian (l. vi.) in his epigram on this invention of Archi- medes, employs himself in the following strong terms: "Jupiter,
A R C

"Jupiter, in parvo cum eunerrert x therin vito," sic.

In English thus:

When in a glass's narrow sphere confin'd,
Jove saw the fabric of th' Almighty mud;
He smil'd and said: 'Can mortals' art alone
Our heavenly labours mimic with their own?
The Syracusan's brittle work contains
Th' eternal law that through all nature reigns.
From'd by his art, ice flaws unwinn'd hush,
And in their coursedd rolling orbs return;
His fun through various signs describes the year,
And every month his mimic moons appear.
Our rival's laws his little planets bind,
And rule their motions by a human mind.
Silents could our thunder imitate:
But Archimedes can a world create.'

Ovid (Fast. vi. 275.) mentions the same machine:

"Arte Syracosii fulgotur in aere chafo
Stat globus, immami parva figura phal."

Plutarch (in Vit. Marcelli, Oper. t. iii. p. 357.) expressly says of Archimedes, after recounting the machines which he had employed during the siege of Syracuse, that in the construction of them "he gained the reputation of a man endowed with divine rather than human knowledge;" but it is to be regretted that, as he adds, "no account of them was left in writing."

Among all the various objects of mathematical speculations on which his attention and inventive faculties were directed, one of the principal was the resolution of the conic sections. Unleas we except the lines of Hippocrates of Chios, he was the first who squared a curvilinear space; he also reduced the quadrature of the circle to the determination of the ratio between the diameter and the circumference; and though unable to obtain the precise value of it, he assigned an useful approximation to it by the numerical calculation of the perimeters of the inscribed and circumscribed polygons. See Circele, Diameter, and Quadrature. He determined the relation between the circle and ellipse; and likewise attempted the hyperbola, though from the nature of the case he was not likely to succeed. He also found the proportion of the area of the spiral to that of the circumscribed circle, and of that of their sectors; he determined the relations of spheres, spheroids, and conoids to cylinders and cones, and of paraboloids to rectilinear planes, whose quadratures were already known. In all his mathematical investigations, he imitated the example of his predecessor, Eucid; and, like him, was cautious in admitting any principles that were not strictly geometrical and unexceptionable.

No friend of science can forbear lamenting the premature death of this singularly eminent mathematician and philosopher, as well as the time and manner in which it happened. After he had been instrumental in protracting the siege of Syracuse for eight months, the city was at length taken by storm and devoted to the flame. Marcellus, indeed, respecting the character even of an enemy such as Archimedes had, was said to have ordered that his house and person should be inviolate; but he was surprised and put to death, says Livy (i. xxxv. c. 31.), by a soldier who was ignorant of his person and character, while he was intent on figures which he had delineated in the dust, and was altogether negligent of his own safety. The account of the manner of his death given by Plutarch (ubi supra) is somewhat different. He says, that Archimedes being in his museum, was so absorbed in his attention to his diagram, that he was assaulted by one of the soldiers before he knew that the city was taken, and that he refused to accompany him to Marcellus till he had finished his problem, upon which the enraged soldier dispatched him with his sword. However this be, Marcellus, it is said, lamented his death, paid respect to his memory by directing and superintending his funeral, and restrained the victorious army from offering any violence to his relations.

Of the numerous works of Archimedes many of them are lost, but the most valuable, as we have reason to believe, are preferred. Torelli has arranged and enumerated them in the following order: 1. "De Planorum Aquilibrivm," liber primus, cum commentariis Eutocii Alcibionita. 2. "Quadratura Parabolas." 3. "De Planorum Aquilibrivm," liber secundus, cum commentariis Eutocii Alcibionita. 4. "De Sphera et Cylindro, liber primus, cum commentariis Eutocii Alcibionita." 5. "De Sphera et Cylindro, liber secundus, cum commentariis Eutocii Alcibionita." 6. "Circuli Delineo, cum commentariis Eutocii Alcibionita." 7. "De Helixius." 8. "De Conoidibus et Spheroidibus, cum Torelli commentario, in Prol. 12." 9. "Areanuus." 10. "De ins qua in humulo voluntur, liber primus," 11. "De ins qua in humulo voluntur, liber secundus." 12. "Lemmata." 13. "Opera Mathematica, ut cufque mento ab antiquis scriptoribus fcta et." These latter works, with the Author's descriptions of them, are lost; they are as follow: 1. "An artificial sphere for exhibiting the celestial motions." 2. "Archimedes's method of investigating the mixture of gold and silver in Hiero's crown, mentioned by Vitruvius." 3. "His pneumatic and hydraulic engines, mentioned by Tzetzes, Pappus, and Theutullian." 4. "Archimedes's fleece, the structure and use of which are well known." 5. "The helix, by means of which, according to Athenaeus, he launched a large ship belonging to Hiero." 6. "A singular kind of locket, the account of which is imperfect." 7. "The tripping, by which large weights might be raised by a very small power." 8. "Various warlike machines, consisting of tormenta, balkis, catapults, fagittarii, forcipones, &c., which, according to Polybius, Livy, and Plutarch, were used in the defence of Syracuse." 9. "His burning-glaives, by the combination of which he is said to have set fire to the Roman ships."

When Conlantinople was taken at the middle of the fifteenth century, such writings of Archimedes as existed, together with the commentary of Eutocius, escaped the ravages of the conquerors, and were brought thence into Italy. Here they were found by the famous John Muller, better known by the appellation of Regiomontanus, who carried them into Germany, and they were soon afterwards, viz. in 1544, published in folio at Baille, in Greek and Latin, by Hervagius, with a preface by Thomas Gheauh. A Latin translation was published at Paris in 1577, by Palaclus Hemelans. An edition was published in folio, by Commandine at Venice, in 1588. The edition of Rivalius, in Greek and Latin, in folio, with new demonstrations and notes, and a life of Archimedes, was published at Paris in 1615. At the close of this edition is annexed an account of the other works of Archimedes that have been lost. Maurouius published an edition in folio, at Melina, in 1671; another by Borelli, was published at Palermo in 1655; and a Latin edition was published by Dr. Barrow in 4to. at London in 1675, with new illustrations and demonstrations. The last, most splendid and complete edition in folio, was printed at the Oxford prefs in 1752; this edition was prepared for the press by the learned Joseph Torelli of Venice, with a new Latin translation, Eutocius's commentary, with a preface and notes; an account of the life and writings of Torelli, by Clemens Sibillati, is prefixed, and a large appendix is added consisting of two parts, the first being a commentary on the paper of Archimedes, relating to bodies floating in fluids, by the Rev. Abram Robertson of Christ-Church College Oxford, who had the whole care of this edition; and
and the second, a large collection of various readings in the MS, copies of Archimedes's works, preferred at Florence and Paris, collated with the edition of Balf. The works of Archimedes form a principal part of the valuable collection of Greek mathematicians, published in folio at Paris, in 169; entitled "Mathematici veteres." Of distinct parts of the works of Archimedes we have various editions. The book "De dimensione circuli," was published in folio, at Paris, in 1761; and at Leipjig, in 1620; and in Octavo, at Oxford, by Dr Wallis, in 1669; and in the third volume of Wallis's works, in 1669. This work, together with the book "De sphare & cyldro," appeared at Paris in 1561; the book "De planis equiponderatis," was published in quarto at Paris, in 1565; "De conoidibus et de spheroidibus," at Palermo, in 1625; "De iis inumodo natant, &c," with the commentary of Commandine, in quarto, at Bologna, in 1565; and the "Arearum," by Wallis, at Oxford, Octavo, in 1676; of which an English translation by G. Anderson, was published in London, Octavo, in 1784, with notes and illustrations. Torelli Pref. Rivali Pref. Fabr. Bibb. Graec. l. iii. c. 22. t. ii. p. 543, &c.

Archimedes's Sympos. See Screw of Archimedes.
Archimedes's Burning-glass. See Burning-glass.

Archimime, Archimimus, archim, and archim, is the same thing in effect with archimallon or mimic. The archimimes, among the Romans, were persons who imitated the manners, gestures, and speech, both of people living, and of those who were dead.

At first they were only employed on the theatre; but were afterwards admitted to their halls, and at last to their funerals; where they walked after the corpse, counterfeiting the gestures and behaviour of the person who was carried to the funeral pile, as if he were still alive.

ARCHINARA, in Ancient Geography, a town of India, on the other side of the Ganges, according to Ptolem.

ARCHIPELAGO, in Geography, a sea interrupted by a great number of islands.

The word is formed by corruption of ἄρχιπελαγος, q. d. ἄρχιεν, which again is formed of ἄρχοντας ἄρχοντας, a name originally given it by the Greeks, but for what reason is not agreed on. See Archipelago.

The most celebrated Archipelago, and that to which the name ufed to be appropriated, and whence all other groups of islands have derived it, is that between Greece, Macedonia, and Asia; in which are the islands of the Arcadian sea, which is called the 'White Sea, in contradistinction to the Euxine, which they call the Black Sea. This part of the Mediterranean sea is bounded on the north by Rome, on the east by Natalia, on the west by Livadia and the Morea, and on the south by the isle of Cyprus. It divides, as far as it extends, Europe from Asia. All the islands contained in it, some of which lying on the coast of Natalia are called Laetic, and the others European, lie between the 35th and 40th degrees of north latitude, and 23d and 27th degrees of east longitude. Some of them are called Cyclades, because they form as it were a crown and circle round the isle of Delos; the others are called Sporades, as being dispersed without any order between Asia and the isle of Candiad.

The modern geographers mention other Archipelagos, as that of Lazarus near the coasts of Malabar and Malacca; the Archipelago of Mexico; and that of the Caribbean, wherein are many islands; that of the Philippines, called by some the "great Archipelago," containing several islands, and all thofe of the Moluccas, of Celebes, &c. Thefe Aefetic islands form a large group usually denominated the "oriental Archipelago," and extending from 10° S. lat. to 22° 4' N. lat. that is 33 degrees, or 21,000 geographical miles, while the length from 95° E. long. to 132°, gives 37° not far from the equator, nearly corresponding with the breadth. The "northern Archipelago," consists of four groups of islands between the efl coast of Kamtchatka in Asia and the west coast of America; the first, called Salagame, comprises five islands; that called Khano contains eight; the second consists of nine; and others there are called Aleutian Islands. The third group includes sixteen islands, called Andreana or Olrove, and the fourth, the Olrove, or Fox islands, which are fifteen in number. "Broughton's Archipelago," is a cluster of islands, rocky islets, and rocks, on the north-west coast of America, so called by Vancouver, after the name of their discoverer, and living about 50° 50', N. lat. and W. long. 126° 20'. The "dangerous Archipelago," or "labyrinth," is a name given to a group of islands discovered in the Pacific Ocean, called in the East Indies, by Quirós, Schouten, and Ie Maire, Roggewein, Byron, Wallis, Carteret, Bougainville, Cook, Edwards, Blair, Vancouver, Broughton, and Wilson, and is called from its intricacy and difficulty which they occasion to the navigation. They are divided from 14° to 27° S. latitude, and as far as 20° S. long. from 1676. To four of these islands Captain Cook, in 1766, gave the names of Resolution, in S. lat. 17° 24', W. long. 141° 39'; Doubtful island in S. lat. 17° 22', W. long. 141° 38'; Furneaux island in S. lat. 17° 4', W. long. 144° 16'; and Adventure island in S. lat. 17° 14', W. long. 145° 30'. All the inhabitants of these islands appear to be of the same race with the Society islanders, but are somewhat darker in their complexions, and more ferocious in their manners. "Archipelago of the great Cyclopes," is the cluster of islands first discovered by Bougainville in 1768, and called by captain Cook, who palled them in 1774, New Hереrids. "King George III.'s Archipelago" is a name given by Vancouver to a large group of islands, forming various channels, and lying on the north-west coast of America between 56° 10', and 59° 15', N. lat. and about 135° and 136° W. long. The exterior coast of this Archipelago from Cape Crof to Cape Edward has several openings that appeared likely to afford shelter, but the rocks and islets, some producing trees, and others altogether barren, that extend to the distance of three or four miles from the shore, must render the entrance of such harbours unpleasant and dangerous. till they are better known. That which seemed to be the eattif of access was noward of Cape Edward, in lat. 57° 34', and was considered by Vancouver as Portlock's harbour. Cape Edgumbe on this coast is situated in lat. 57° 24', and W. long. 143° 34'. This cape forms the north-west point of a spacious opening that branches into several arms, and is called by Mr. Dixon, the Norfolk Sound. One of the northern branches of this sound communicates with the land on which Mount Edgumbe islands, named by Captain Cook the Bay of Islands, and makes the intermediate part of the sea-coast an island. The utmost extremity of this Archipelago in lat. 56° 10', and W. long. 134° 23', constitutes a remarkable promontory that terminates in a high bluff rocky cliff, and becomes, on its eastern side, a narrow point of land, named by captain Coocets, Cape ommanoy; and the opening between this and Cape Diron, he called Chirilian Sound. Vancouver's Voyage, vol. iii. p. 257. A cluster of islands, or a single island, about twenty leagues in length, and lying between 53° and 54° N. lat. and about 130° W. long. was called by Vancouver, 'Pitt's Archipelago." On the north of this group was Chatam's Sound,
ARCHITECTURE, the art of erecting buildings of any kind.

Amongst the various arts cultivated in society, some are only adapted to supply our natural wants; others are necessities; some are instruments of luxury merely, and calculated to flatter our pride, or gratify our desires: whilst others tend at once to secure, to accommodate, delight, and give consequence to the human species. Architecture is of this latter kind; and when viewed in its full extent, may truly be said to have a very considerable part in almost every comfort or luxury of life. The advantages derived from houses only are great, they being the first steps towards civilization, and having certainly great influence both on the body and mind. Excluded from each other, inhabitants of woods, of caves, or wretched huts, exposed to the inclement vicissitudes of seasons, and the differing uncertainty of weather, men are generally indolent, dull, and listless, with faculties blemished, and views limited to the gratification of their most pressing necessities; but whatever societies are formed, and commodious dwellings are found, in which well sheltered they may breathe a temperate air, amid the summer's heat or winter's cold; deep, when nature calls, at ease and in security; truly unmolested, conversing, and telle the sweets of social enjoyments; there they are spirited, active, ingenious, and enterprising; vigorous in body, speculative in mind; agriculture and arts improve, they flourish among them; the necessities, the conveniences, and even the luxuries of life, become there abundant. Little strength however, even the feeblest perseverence, obtains with difficulty the defined produce; but inventions facilitate and shorten labour, multiplying productions so, as not only to supply domestic wants, but likewise to treasure up stores for foreign markets. Architecture then smooths the way for commerce; the forms commodious roads through marshes or other grounds naturally impracticable, fills up vales, unites, or levels mountains; throws bridges over deep or rapid rivers, turns aside or deadens the fury of torrents; confirms canals of navigation, builds ships, and contrives ports for their secure reception in the hour of danger: facilitating thus the intercourse of nations, the conveyance of merchandise from people to people. A well-regulated commerce is ever the source of wealth; and luxury has ever been attendant on riches. As the powers of gratification increase, fancy multiplies wants; till at length, indolence or pleasure, vanity and superfluous, fears and refinements, give birth to a thousand superfluous, a thousand artificial cravings; the greater part of which could not be gratified, without the assistance of architecture; for splendid palaces, magnificent temples, costly dwelling-houses, and amphitheatre, theatres, baths and porticos, triumphal arches and bridges, mausoleums, and an endless number of similar inventions, are all either necessaries of the human race; or fpiriting testimonies of wealth, of grandeur and pre-eminence; either present or past. Nor are there any other objects, whether necessary or superfluous, so certainly productive of their design; so permanent in their effects, or beneficial in their consequences, fine furniture, rich dresses, brilliant equipages, numerous domestics, are only secondary attractions at first; they soon feel the effect of time; and their value fluctuates, or dies with the fashion of the day. While the productions of architecture command general attention; are monuments, stretching beyond the reach of modes; and record to later posterity the consequence, virtues, achievements, and munificence of those who
they commemorate. The immediate and most obvious advantages of building are, employing many ingenious artisans, many indolent workmen and labourers of various kinds; converting materials of little value into the most splendid productions of human skill; beautifying the face of countries; and multiplying the conveniences and comforts of life. But these, however great, are not the most considerable: that numerous trains of arts and manufactures, contrived to furnish and adorn the works of architecture, which occupies thousands, and constitutes many lucrative branches of commerce; that certain concourse of strangers, to every country celebrated for flately structures; who extend your fame, adopt your fashions, give reputation, and create a demand for your productions; are considerations of the highest consequence: in short, the advantages of building extend to the remotest ages, and at this day, the ruins of ancient Rome, in a great measure, support the splendor of the present; by the number of travelers who flock from all nations, to visit the ancient remains and modern magnificence of that famous city; and who, in the course of a few centuries, have there expended incredible sums of money, by long residence; and in the purchase of old pictures, antique flutings, busts, half-reliefs, urns, and other curious productions of art; of which, by some extraordinary good management, there is a treasure never to be exhausted. Nor is architecture less useful in defending, than prosperous in adorning and enriching countries; the guards their coasts with ships of war, secures their boundaries, fortifies their cities, and by a variety of artful contrivances, controls the ambition and frustrates the attempts of foreign powers; curbs the insolence, and averts the danger, and the horror of internal commotions. Thus architecture, by supplying men with commodious habitations, procures that health of body and vigour of mind, which facilitate the invention of arts; and when, by the exertion of their skill or industry, productions multiply beyond domestic wants, the furnishes the means of transporting them to other markets; and whenever by commerce they acquire wealth, it points the way to employ their riches rationally, nobly, benevolently; in methods honourable and useful to themselves and their descendants; which add splendor to the state, and yield benefit both to their contemporaries and to posterity: the farther teaches them to defend their possessions, to secure their liberty and lives, from the attempts of lawless violence, or unrestrained ambition. An art so variously conducive to the happiness of man, to the wealth, lullure, and safety of nations, naturally commands protection and encouragement; in effect, it appears, that in all civilized times, and well regulated governments, it has been much attended to, and promoted with unremitting fidelity; and the perfection of other arts has ever been a certain consequence; for where building is encouraged, painting, sculpture, and all the inferior branches of decorative workmanship, must flourish of course; and these have an influence on manufactures, even to the minutest mechanical productions; for design is of universal benefit, and stamps additional value on the most trifling performances, the importance of which, to a commercial people, is obvious; it requires no illustration. Let it not however be imagined that building, merely considered as heaping stone upon stone, can be of great consequence; or reflect honour, either on nations or individuals: materials in architecture are like words in philology; having separately but little power; and they may be so arranged, as to excite ridicule, disgust, or even contempt; yet when combined with skill, expressed with energy, they actuate the mind with unbounded sway. An able writer can move even in vulgar language, and the mazy dispositions of a skilful artist will dignify the

man's materials; while the weak efforts of the ignorant, render the most costly enrichments despisable. To such, the compliment of Apelles may justly be applied; who, on seeing the picture of a Venus magnificently attired, said to the operator, "friend, though thou hast not been able to make her fair, thou hast certainly made her fine." See the preface to Sir W. Chambers's Treatise on Civil Architecture.

Architecture is divided into Civil, Military, and Naval Architecture, for which see the several heads.

ARCHITHELASSUS PRIMUS, in Conchology, a name given by Argenville to the shell called by Linnaeus Costas funatus.

ARCHITRAVE, in Architecture, the lower division of an entablature, or that part which rests immediately on the column.

In the most ancient buildings, which were probably of timber, the architrave was the beam which extended from column to column, to support the roof, whence the name, which is from arch, chief, and trave, a beam.

In all the ancient examples of the Doric order still existing in Greece, as those at Athens and Corinth, and also those at Pafalum, and in Sicily, it has only one facia, and is of great height, being nearly equal to the diameter of the column. In the Doric order of the temple of Marcellus at Rome, it has only one facia, but is much lower, being only equal to half a diameter of the column. The moderns, such as Vignola, Scamozzi, &c. have generally confined it to this proportion nearly, but have divided it into two facets, taking the idea from some ancient examples of the Doric order in Italy.

In one of the ancient examples of the Ionic order in Greece, such as the temple on the Ilissus near Athens, it has only one facia, which is quite plain, and of considerable height; while in others, such as the temple of Minerva Polias at Athens, and that of Bacchus at Teos, it is divided into three facets, and has the upper moldings enriched. In the Ionic order of the temple of Fortune, and at the theatre of Marcellus at Rome, it also has three facias. The moderns have generally given it two facets.

In the Corinthian and Composite orders, both the ancients and moderns have divided it into three facets, generally enriching the moldings.

The practice of architects differs exceedingly in the proportions of the architrave, as in all the other parts of the orders. Character and propriety, however, seem to require, that in the mazy and grave orders, such as the Doric and Ionic, this member, which represents a part subject to great pressure, should have a proportionate degree of strength; while in the gayer Corinthian and Composite, its appearance should be lighter and more ornamented.

In Gothic architecture there is no architrave, and this forms one of the most striking differences between this species of architecture and the Grecian. In the latter there is always a horizontal architrave over the columns, whereas from the tops of Gothic columns arches always spring. The Egyptian architecture is also characterized by horizontal architraves.

ARCHITRAVE Cornice. See Cornice.

ARCHITRICLINUS, in Antiquity, the mazer or director of a feast, charged with the order and economy of it, the covering and uncovering of the tables, the command of the servants, and the like.

The word architrucinus properly imports the chief or mazer of a tribulum or dining-room. His office properly differed from that of modinstructor, or arbiter bibendi, as the latter was appointed by the guests; the architrucinus, by the person who gave the feast.
The archivistus was sometimes also called fereus triebniarcus, and by the Greeks keraunon, i.e. reggulator, or foresitter. Potter also takes the archithecus for the same with the Symposiarcha.

ARCHITHEC. See Architec.

ARCHIVAL, in Architecture, the inner contour of an arch; or a band or frame adorned with mouldings, running over the faces of the arches, and bearing upon the impost. See this represented in the lines that bound the arch over E. See Basilic.

The word is French, archithee, where it signifies the same thing, formed of arcu caevelus.

It is different in the different orders. In the Tuscan, it has only a single face; it has two faces crowned in the Doric and Ionic; and the same mouldings with the architrave in the Corinthian and Composite.

ARCHIVE, or Archives, a chamber or apartment wherein the records, charters, and other papers and evidences of a state, house, or community are preferred, to be consulted occasionally.

A word comes from arcus, abbrev., or the Greek στεφανος, which Suidas ues in the same sense. In some Latin writers we meet with archivarium.

We say the archives of a college, a monastery, &c. The archives of ancient Rome were in the temple of Saturn; the archives of the court of chancery are in the Rolls office. In the code we meet with archivum publicum vel armarium publicum, uti utr. & libri expon. lati. Cod. de fil. infraim. auth. ad ben. xxx. q. 1.

ARCHIVIST, archivi, a keeper of an archive.

Under the emperors, the archivist was an officer of great dignity, held equal to the proconsuls, vested with the quality of a count, styled clariifimus, and exempted from all public offices and taxes. Among the ancient Greeks and Periand, the truth was committed to none but men of the first rank; among the Franks, the clerisy, being the only men of letters, kept the office among themselves. Since the erection of the electoral college, the archbishop of Mentz has had the direction of the empire.

ARCHIZUPANUS, a title given to the prince or de- 27
spot of Servia. The word is compounded of στεφα- 28
νος, and γειτον, neighbor. In an epitaph of pope Innocent II, he is called Magnus Iustinianus.

ARCH-MARSHAL, Archimarcuscallus, the grand marshal of the empire.

The elector of Saxony is arch-marshal of the empire; and in that quality he goes immediately before the emperor, bearing a naked sword, at the diet, and on other solemn occasions. He bears in his arms two swords placed crosswise. During the holding of the diets, he has jurisdiction over all electoral and other officers of the states of the empire, and also in criminal matters. His hereditary marshals are the counts of Pappenheim, who, by virtue of their office, bear the electoral swords of Saxony in their arms.

ARCH-MINISTER, derived from the Greek archon, and the Latin minister, the prime minister of a prince, or state. Charles the Bald having declared Boso his viceregent in Italy under the title of duke, made him also his first minister under that of arch minister.

ARCHION, archion, literally signifying a commander, in Antiquity, the chief magistrate of the city and commonwealth of Athens.

After the Athenians had abolished monarchy, they created archons, who were obliged to render an account of their administration to the people. Some of these were annual, and others perpetual. Mec俊, the son of Codos, was the first of the latter; and Creal, of the former, who entered upon his charge in the first year of the twenty-fourth Olympiad, or the 644th year before Christ. The occasion of their institution was this: Codrus, king of Athens, having devoted himself for the good of his people, in the war with the Heraclids; his sons, Mec俊 and Neles, deposed the crown between them; the Athenians took this occasion of dissolving their monarchy, and, in lieu of kings, created perpetual governors, under the name of archons. Mec俊, son of Codrus, was he who first had this charge, being appointed in the year 1070 before Christ; but required to render an account of his administration. He held it for twenty years, and his two descendants in regular succession (from him called Megalobus) enjoyed it for 287 years. But a perpetual magistracy seemed to this people too little an image of royalty, the very shadow whereof they related to abolish. Accordingly, the administration of an archon, which had before been perpetual, they reduced, in the first year of the seventh Olympiad, 1 or 73d year before Christ; or, according to Bihur, the third year of the sixh Olympiad, or 74th year before Christ: to ten years: and, about seventy years after, to one year: with a view of recovering as oft as possible the authority into their own hands, which they never transferred to the magistrates but with regret. The first of the decennial archons was Charopus, brother of Alemzezon and son of Megaceilus; and the last was Eryxias, who closed the race of Codrus. The chief magistrates of Athens, distinguished by this common appellation, were nine in number; though the name archon belonged, by way of eminence, to the chief of the nine, who was also called epimenus, cures, because the year was denominated from him. His jurisdiction comprehended both ecclesiastical and civil affairs. He determined all causes between men and their wives, parents and children, and disputes relating to wills, dowries, and legacies: he had the charge and direction of orphans, minors, tutors, and guardians. He had also the first cognizance of several public actions. He kept a court of judicature in the odeum to decide in trials relating to provisions and similar matters. He appointed epimenos, or curators, who took care of the due celebration of the feasts called ἀγορα, ἀλοα, and ἀντιεραιτος, or of the regulation of plays. He was punished with death if convicted of drunkenness during the time of his office. The second archon was called ἀνωτα, or king: to him pertained the superintendence of the religious ceremonies and feasts: he decided all disputes between the priests and families feared by inheritance, as the Cerecs and Erotobates: he punished all impurity and profanation of the holy mysteries or temples: he offered public sacrifices for the prosperity of the commonwealth: he had also some concern in secular affairs, as he took accusations of murder, and referred them to the Arapogates, among whom he had a right of suffrage; but during the trial, he laid aside the crown which was the badge of his office. His court of judicature was in the royal portico. It was required, that his wife, called ἱσμειας, khyfia, should be a legitimate citizen of Athens, and a virgin. The third was the ped- marchus, so called from τοῦκρατ, year, and archos, to command: to him belonged the care of strangers and sojourners, and the conduct of war; and he took care that the off-spring of those who died in the service of their country should be maintained from the public treasury. These magistrates were assisted by the Thaissi, or alliati, who were committed into office in the same mode, and under the same restrictions. The other six were called ἄσματο, from ἁμειας, law, and ἱσμειας, I gladiators. They formed a tribunal for judging concerning seductions, calumnies,
ties, bribery, &c. and for settling disputes between the citizens and foreigners, and all controversies in trade. They ratified all contracts and leagues, directed and guarded the establishment of laws, and formed a kind of barrier between the other magistrates and the people: they preferred the appeals to the people, publicly examined several of the magistrates, and took the votes in the assemblies, and prosecuted those who attempted to mislead the unwary into any act injurious to the commonwealth. They used to parcelate the city in the night, and to correct those who committed any disorder. The whole body had the power of life and death; they had a joint commission for confounding some magistrates and depthing others, when upon investigation, the fuluffles of the people, they were declared unworthy of their offices; they had also authority to assemble the people; and they were exempted from all taxes and contributions for building ships of war, in recompense of their service. They wore garrisons of myrtle; and any person who struck them, when they wore their garrisons, was punished with _aqua, insania._ They were elected by lot, and previously to induction into their office, they underwent a twofold trial, one in the forum, called _docimoia_; and the other in the senate house, denominated an _arrefis_; and in these trials, they were asked, who were their ancestors? whether by three of them were Athenian citizens? whether they were related to Apollo Patrius or Jupiter Hercerus? to what tribe and ward they belonged? whether they had been dutiful to their parents, had served the appointed time in the wars, had the estate which the law required, and were perfect in all their limbs? They were then conducted into the royal portico, where an oath was required of them, that they would administer justice without partiality, and never be corrupted by bribes. This custom was established by Solon, who also enacted that terrible law which condemned to death the archon who, after losing his reason in the pleasures of the table, should dare to appear in public with the ensigns of his dignity. Potter's Arch. Grce. vol. i. p. 71. Under the Roman emperors, several other Greek cities had two archons for chief magistrates, which were the same with the _daimonius_ in the colonies and _municipia._ Archon is also applied, by some authors, to divers officers, both civil and religious, under the eastern or Greek empire. Thus, bishops are sometimes called archontes; and the same may be paid of the lords of the emperor's court. We also read of the archon of the antemnens, archon of archons, grand archon, archon of churches, archon of the gospels, archon of the walls, &c.

Archon, Louis, in Biography, an antiquary, chaplain to Louis XIV., was born at Rouen in Normandy in 1615, and died at Rome in 1717. His "History of the chapel of the kings of France," in 2 vols. 4to, abounds with curious researches. Note, Dit. Hiller.

ARCHIVIT, in Church History, a sect which arose towards the close of the second century; thus called from the Greek _archivita_, q. d. _principalities, or hierarchies of angels;_ because they held the world to have been created not by the supreme God, but by certain subordinate powers, called archontes, or angels. The archontici were a branch of Valentinians.

ARCHONTIUM, _exepytov_, denotes a dignity of the Greek church.

ARCHOUS, in Ancient Geography, the name of a river in Asia, situated in Afyria. Allo, a place of Asia in Mesoopotamia, west of the Tigris, and near the wall of Semiramis.

ARCHPRIEST, Archpresbyter, a priest, or presbyter, established in some diocese, with a pre-eminence over the rest.

Anciently, the arch-priest was the first person after the bishop: he was seated in the church next after the bishop; and even acted as his vicar, in his absence, as to all spiritual concerns. In the sixth century, there were found several arch-priests in the same diocese; from which time some will have them to have been called deans.

In the ninth century, they distinguished two kinds of earls or parishes: the smaller guarded by simple priests; and the lapidary churches by arch-priests; who, beside the immediate concern of the cure, had the inspection of the other parishes, and gave an account of them to the bishop, who governed the chief, or cathedral church in person.

There are arch-presbyters still fulfilling in the Greek church, vested with most of the functions and privileges of archbishops, or rural deans.

ARCH-PRIOR, was a name sometimes given to the master of the order of Templars.

ARCH-CHAIRER, archibisflavaarius, the great treasurer of the German empire.

This office was erected with the eighth electorate, in favour of the elector Palatine, who had lost his former electorate, which was given to the duke of Bavaria by the emperor Ferdinand II. who took it away from Frederick V. elector Palatine, after the battle of Prague, where he was defeated in maintaining his election to the crown of Bohemia. Since the treaty of Westphalia, the elector Palatine has been arch-treasurer. The elector is protector through all Germany of the order of St. John, can raise noblemen and gentlemen to the degree of counts, and also admit as bondmen, in places subject to his jurisdiction, all those that are illegitimately born, and other persons of foreign countries, on condition of their binding themselves to the duties of the electorate, and to the payment of a certain tribute and monies.

The dignity of arch-treasurer was contested between the elector of Brunswick, now king of Great Britain, who claimed it in virtue of his descent from the elector Frederic, and the elector Palatine. This elector still styles himself arch-treasurer, till another suitable arch-office be assigned him. He enjoys the ultimate succession in the bishopric of Osna- burg, together with some other rights and privileges. His electoral jurisdiction extends to the territories of Hanover, and to those of Zell. Although the illustrious house of Hanover was raised to the electoral dignity by the emperor Leopold, in 1692, it obtained neither voice nor seat in the electoral college till the year 1708.

ARCHYTAS, in Biography, a Pythagorean philosopher and distinguished mathematician of Tarentum, was a contemporary with Plato, who interpolated for his refuge from death, under the tyranny of Dionysius of Sicily; and the eighth preceptor of the Pythagorean school, in succession from Pythagoras. Accordingly, he flourished about the ninety-fifth Olympiad, or 400 years before Christ. Such was the celebrity of this philosopher, that among his disciples are reckoned Philolaus, Eudoxus, and Plato. Archytas was in such high esteem among his countrymen for wisdom and valor, that he was chosen seven times general of their armies, and chief magistrate of Tarentum, in direct opposition to an established law; and in the exercise of his office he invariably recommended himself by his moderation, and also by his ability and clemency. As a speculative philosopher, he followed the doctrine of Pythagoras: and Aristo, who is said to have borrowed from him the general arrangements known under the appellation of the "Ten Categories," To Archytas, this great philosopher was also indebted for many of his ethical principles and maxims; and more especially for the notion which he repeatedly inculcates, that virtue
virtue consists in avoiding extremes. Virtue, according to Archytas, is to be pursued for its own sake, in every condition of life; and he taught, that all excess is inconsistent with virtue; that the mind is more injured by prosperity than by adversity; that there is no excellence in permitting to human beings as pleasures; and that the love of it is a debilitative disease of the human mind. To his ingenuity, as a mathematician, we owe, according to Fabritius, the method of finding two mean proportionals between two given lines, and the duplication of a cube; and we derive, from his skill in mechanics, the invention of the screw, and crane, and various hydraulic machines; to say nothing of his flying pigeon, or winged automatons. See Aerostation. The astronomical and geographical knowledge of Archytas is celebrated by Horace in a beautiful ode, recording also his death, which was occasioned by a shipwreck on the coast of Apulia, where his unburied corpse was found:—

"Te maris et terrarum, numerorum carenis arenze
Menoporem cohibent, Archytas,
Pulvis exigui propeitus parva Matinum
Minera; nec quidquam tibi profert
Aeolias tentata donos, ammico rotundum
Percurrulte polum, martiruo."

Lib. I. Od. 28.

"Archytas, what availsth thy nice survey
Of ocean's countless sands, of earth and sea?
In vain thy mighty spirit once could soar
To orbs celestial, and their course explore,
If here, upon the tempted-beaten strand,
You lie confin'd, till some more liberal hand
Shall draw the pious dust in funeral rite,
And wing thee to the boundless realms of light."

Francis.

As to his moral disposition and conduct, Archytas was distinguished by modesty and self-command; and in his language he is said to have flown a degree of regard to decency, not often found among the ancients. He never chastised a servant, or punished an inferior in wrath. To one of his dependents, who had offended him, he said, "It is well for you that I am angry; otherwise I know not what you might expect." None of the writings of Archytas are extant, except a mathematical work, entitled "Hierarchia Sententiarum," or "On the universe," in which he distributes all things into ten classes or categories, written in the Doric dialect, and published in Greek and Latin at Venice, in 1571, 8vo. Several fragments on "Wisdom," and "On the good and happy Man," have been preferred by Stobaeus, and edited by Gale, apud Opofe, Mythol. p. 673. Laertius, l. vii. c. 79—86. Val. Max. l. v. c. 1. Strabo, l. vi. Anl. Gell. l. x. c. 12. Aelian, l. vii. c. 14. l. xii. c. 19. l. xiii. c. 55. l. xiv. c. 19. Suidas. Fabr. Bibl. Græca, l. i. c. 13. § 1. l. i. p. 493. Beuckler's Hist. Phil. by Enfield, vol. i. p. 470.

ARCHIDES, in Ancient Geography, a river of Italy in Bruttium, near Rhegium.

ARCILLAUS, a town of Spain in Betica, situate, according to Ptolemy, in the territory of the Turduli. — Also, a town of Hylpaian Tarragonensis, called Archipiana, in the territory of the Balitani, according to Ptolemy.

ARCILEUTO. See Archileuto.

ARCINA, in Ancient Geography, a town placed by Ptolemy in Dacia.

ARCHELLA, in Conelology, a species of Chamis found in the American ocean. It is grooved, muricate, and marked with excavated dots; hinge with a feelie calyx. Gmelin. The breadth is about two inches, and the length nearly the same; it is white, with the edges rarely of a rose colour; within it is yellowish; the margin crested; posterior excavation cordated, warted, rugose, and large, with an appendage in general on one side.

ARCIROESSA, in Ancient Geography, a town of Afa, upon the Ænian sea.

ARCI for Aera, in Ancient Geography, a town of France, in the department of the Aube, and principal place of a district, five leagues north of Troyes. The place contains 2,520, and the canton 9,330 inhabitants; the territory comprehends 77 kilometres and 21 communes. N. lat. 48° 2', Long. 4° 22'.

ARCISANA, a town of Italy in the Milanese, 11 miles west of Como.

ARCHES, in antiquity, birds which gave bad omen, either by their flight, noise, or manner of eating. They were called arces, sometimes also arcens, quia arcens ne quod secret, prevented or forbid things being done.

ARCO, in Geography. See Arch.

ARCOBRIGA, in Ancient Geography, a town of Spain in the country of the Celtiberians, between Segontia and Bilbilis. — Also, a town of Spain, in Lusitaniana, according to Ptolemy.

ARCONATO, in Geography, a town of Italy in the duchy of Milan, 18 miles W. from Milan.

ARCONCEY, a town of France, in the department of the Côte d'Or, and chief place of a canton in the district of Arras le Duc, five miles N. from Arras le Duc.

ARCOLS de la Frongera, a town of Spain, in the country of Seville, situated on a sharp rock near the river Garathale, and fortified by both art and nature; anciently Arcobriga: 40 miles S. S. W. from Seville. N. lat. 36° 49'. W. long. 4° 55'.

Arcos, a town of Spain in Old Calis, on the river Xalon, and at the foot of a mountain in the road from Siguenza to Saragossa, two leagues east from Murza-Cali.

ARCOS de Valdevez, a small town of Portugal, in the province of Entre-Minho and Douro. It is the ancient Arcibriga Lusitaniae of Ptolemy.

ARCOT, a city of Hindostan and capital of the Carnatic, is seated on the river Pabar, at 56.6 geographical miles in horizontal distance from Madras, according to the measurement of major Reuell, and in N. lat. 12° 51' 26", E. long. 79° 28' 15". It appears to be a place of great antiquity, because it is taken notice of by Ptolemy as the capital of the Sora, or Sora—mandalam; whence by corruption is derived Choromandell. Arcot is a pretty large city, and its citadel is esteemed a place of some strength for an Indian fortress. The defence of this place by Cave, in 1751, established the military fame of this nobleman. The Nabob of Arcot, or of the Carnatic, is an ally of the East India Company, and his dominions commence on the south of the Guntoo Circuit, and extend along the whole extent of Coromandel to Cape Comorin. See Carnatic. The revenue of the nabob is rated at about a million and a half sterling per annum; out of which he pays a subsidy of 163,000 L. per annum, to the East India Company, towards the expense of their military establishment. — Rees's Memoir, Pref. p. 137.

ARCHES, in a town of France in the department of the Var, and chief place of a canton, in the district of Draguignan, 10 miles from Frejus.

ARCTANES, in Ancient Geography, a people of Epirus.

ARCTAPELIOTES, in Cosmography, the wind which blows at the 43rd degree from the north toward the east. In this sense, arctapeliotes amounts to the same with that to which we call the north-east wind.

ARCTIC, in Astronomy, an epithet given to the north pole, or the pole raised above our horizon. It is called the arctic pole, on account of the constellation of the Little Bear, in Greek called σηλός, the tail star of the tail whereof of nearly points out the North Pole.

ARCTIC circle, is the lesser circle of the sphere, parallel to the
the equator, passing through the north pole of the ecliptic, and 23° 28′ distant from the north pole, from whence its name. This and its opposite, the antarctic, are called the two polar circles, and may be conceived to be described by the motion of the poles of the ecliptic, round the poles of the equator, or of the world. The arctic circle is the boundary of the north frigid zone.

ARCTICA, in Conchology, is a species of Mya that inhabits the north seas. The shell is heart-shaped, and keeled with two fleshy ridges; hinge without teeth, with. Gmelin, &c. This is Mya teflæ flustra, valvis carinis dorsi spatulatis, spatulis oblongis, umbilico oblongo dentato. O. Fabr. Fin. Groa. The length of this shell is from one line and half to seven lines; of a pale yellow colour; within, milky white. It refurnishes an Arc; the anterior part is impressed and rather flattened; very obtuse in front; and behind, shorter, and rather sharp.

Arctica, a species of Arctona that inhabits the Greenland seas. The specific character is concise. Shell perforated; keel entire. Gmelin. This is Clione bhecina of Pall. In spring and autumn it is seen swimming on the surface of the water; is very fragile, finely grooved; and about three lines and one half in diameter.

Arctica, in O. nitula, a species of Alca, known in England by the name of puffin. The bill is compressed, sharp-edged, with four grooves; orbits of eyes and temples white; with a sharp-pointed, and somewhat triangular protuberance upon the upper eye-rid; Linnæus. Pallis, Britaniæ, Gmelin, &c. This bird is called Pica Marina by Aldrovandus, Pfitzicum Marinius by Marten. Ipatsa by Kniph., Macarea by Buffon, and Puffis by Pennant, Latham, and Donovan, Brit. Birds, &c. The length from the point of the bill is twelve inches, breadth twenty-one; weight twelve ounces. The bill is an inch and a quarter long, and is of a singular shape, much compressed on the sides, and nearly an inch and a half deep at the base, from whence both mandibles tend to a point, which is a little curved; across the upper mandible are four oblique furrows; on the under, three; half of the bill next the point is red; that next the base is blue grey; and at the base is a fort of rifing, and full of minute holes: in the nostrils is a long and narrow slit on each side, near the edge of the upper mandible, and parallel to it; the irides are grey; the edges of the eye-lids crimson; on the upper a callous protuberance of a triangular shape; and on the under one, another callousity, but of an oblong form; the top of the head, hind part of the neck, and the upper part of the plumage are black, passing round the throat in a collar; the sides of the head, chin, and all the parts beneath, are of the purplish white; the legs are orange; in some birds there is a great portion of a dusky mixture on the cheeks, and a patch of the same on each side of the under jaw, and these have been supposed to be the females. They vary exceedingly in regard to the bill, according to age; in the first year it is small, weak, destitute of any furrow, and of a dusky colour; in the second, larger, stronger, and lighter coloured, with a faint veilage of a furrow at the base; but in those of a more advanced age the colour is brighter; hence these birds are supposed not to be perfect, or at least not to breed, till the third year; especially not as a single one has ever been observed at Prielholm which had not the bill of a uniform growth.

These birds are frequent upon several of the rocky coasts of England, as Prielholm Isle, the Needles, Isle of Wight, Beachy Head, &c. They are common in Ireland also, and in North Britain; inhabit Ireland and Greenland; frequent Carolina in America in winter; were met with by our late voyagers in Sandwich Sound, where the natives ornament the fore parts and collar of their seal-skin jackets with the beaks of them; and in Osnaburgha, where they make gowns of their skins. On the coast of Kamtschaka, and the Kurile islands they are common, even on the Penchinskai Bay almost as far as Ochotska; the nations of the two first wear the bills about their necks fastened to fraps, and, according to the superstition of these people, their shaman or priest must put them on with a proper ceremony, in order to procure good fortune.

The puffins arrive at their breeding places about the rocks of Prielholm the first week in May, and are wont to flood the rabbits to make of their own volition, feed their young, and are considered as a stupid race of birds. The female lays but one egg, which is of a white colour; the young are hatched in the beginning of July, and about the middle of August they take flight. The young that are hatched become the prey of the falcons and hawks that live on these rocks, for the old ones leave the place, to a single bird. Notwithstanding their neglect of the young at this time, on every other occasion they show great attention to them. They will suffer themselves to be taken by the hand, and use every means of defence in their power to save them; and if laid hold of by the wings, will give themselves most cruel bites on any part of their body within reach, as it was often by myself and when released, instead of flying away, will often hurry again into the burrow to their young. They feed on sprats, crabs, sea-weeds, &c. and the flish is exceedingly rank, though the young, when pickled, are admired by some people.

A variety of this species is described by Dr. Latham from a specimen in the collection of Sir Joseph Banks, that was met with at Bird island between Asia and America. The length is sixteen inches; the bill is two inches long, much the same colours as the last, but not so deep at the base; crown of the head, as far as the nape, ash-colour; sides of the head white; throat, neck, and all the upper parts of the body, wings, and tail, black; breast and under parts, white; legs, orange. The other sex has the bill more slender; the crown of the head, black brown; sides of the head white, poising backwards almost to the nape; thighs ash-coloured; and in other respects like the former species.

ARCTICUS, a species of Columbus, the head is hoary white; under the throat violaceous black, with a white interrupted band. Gmelin. This is Columbus (Arcticus) capite coloquio cinereus, gutture nigro-violaceo, dorso nigro maculis quadrangularibus albis; Brunnick. Columbus Arcticus, Linnæi, of Willughby. Columbus Arcticus, Hyniber. Ginger Act. Raro. Mergus guttur nitrogen Brifion, Hirundinis aquatica species exotica, Dill. mut. Linnæi, 1694. Columbus. Linnæi, of Worm. mut. Linnæe, ou petit plongeon de la mer du nord, of Buffon. Speckled Loon, of Edwards and Black-throated Diver, of Pennant and Latham.

The length of this bird is two feet; bill near an inch long, slender and black; the forepart of the head and throat black; hind part of the head and neck, ash-colour; sides of the half, white spotted with black; on the forepart of the neck a large patch of black, five inches in length, changing to purple and green in different lights; the back and upper parts black; feathers marked with square spots of white; wings cover the same, but the spots are round; breast and belly white; quills dusky; tail short and black; legs black, with a cast of red on the inside.

This bird is common in the northern parts of Europe, as Norway, Sweden, and Denmark. Frequent in the inland lakes of Siberia, especially those of the Artic regions; also in Ireland, Greenland, and the Ferro isles; and likewise, at
at Hudson's Bay in America. It is supposed to eat and be very relleis against rain; hence the Norwegian think it im-
pious to destroy this species; but the Swedes, less superfi-
tious, dress the skins, which, like all of this genus, are ex-
ceeding tough, and use them for gun-cases, and fancies for
winter cas. Vide Lathun, &c.

ARCTIUM (1795, Dioscor.), in Botany, Burdock. Lin.
ed at the end. Cor. compound, tubular, uniform; corol-
ules hemispheric, equal. Proper, monopetalous, tubular;
slow tender, very long; limb ovate, quinquefoil; divisions
linear, equal. Stam. filaments five, capillary, very short;
another cylindrical, tubular, the length of the corolla, five-
toothed. Pijf. germ oblong, with a villosa top. Style, fil-
iform, longer than the flamente. Style bisal, reflex. Per.
none. Calyx converging. Sepals foliates, vertically pyramidal,
with the two opposite organs obliterated, gibbous on the
outside. Dutya simple, shorter than the seeds. Rec. chaffy,
flat; chaffs facetuous. Eff. Gen. Char. Cal globular, the
seals at the end hooked, inflected.

Species 1. A. Lopha, common burdock or clot-burr; "leaves corolae umbratarius pasta." Curt. Lond. f. e. 4. 355. Woody. Med. Bot. 15. Bardana major. Ger. Pharm. Lond. &c. Root biennial, suffrutic. Stem three or four feet high, erect, brarched, round, grooved. Leaves alternate, large, rough, undulate. Flowers in panicles, terminal. The outer scales of the calyx by their hooks hold of animals, cloaths, or any soft substance with which they come in contact. Corolla purple. It is common on the sides of roads, flowering in July and August. There is a woolly-headed variety of this species: it also varies much in the size of the heads. Medicinal properties. The pharmacopoeias direct the root for medical use; it has no smell, but tastes sweetish and mixed as it were with a slight bitterness of roughness. Its virtues, according to Bergius, are cleaning, diuretic, and diaphoretic. It has been employed in chronic cafes, as febrile, rheumatic, gout, lues venera, and pul-
monic complaints. We have never had an opportunity of observing the effects of this root, except as a diuretic, and in this way it has proved very effectual in droptics. The seeds also possesses a diuretic quality, and have been given with advantage in the dole of a dram, in calculous and nephritic complaints; and in the form of emulsion, as a pectoral. The root is generally used in decoction, which may be made by boiling two ounces of the fresh root in three pints of water, two of which, in drophal cafes, should be taken in the course of twenty-four hours. Wood. Med. Bot. p. 421. 2. A. Perfonata, cut-leaved burdock. "Leaves decrentur, ciliat, epiny; root-leaves pinnate; stem-leaves oblong-ovate." Cardinus peronata, Jac. f. a. 4. 3. 3. 348. Root biennial, woody. Stem two feet high, angular leaves on the stem, tomentose beneath, fercate, spines at the edges. Lower leaves petioled, consisting of three or four pairs of pinna, with a very large leaf at the end. Flowers in terminal clusters on tomentose peduncles, armed with little spines. Scales of the calyx reflex at the point, but not hooked; flo-
rets fix or ferev, of a violet purple colour. A native of Swit-
zerland, Austria, Slavca, and Siberia; flowering in July and Augut. Introduced here in 1756 by J. N. de Jacquem, M.D. 3. A. Cardinata, "leaves pinnatifid prickly;" frum upright, prickly, grooved, about a cubit high; leaves lem-
clapling, deeply lacinate; calyces terminating, peduncled,
with linear brittle-shaped scales spreading and bending in-
wards. A native of the mountains in Upper Carniola, and
in Sibilia. These plants are seldom admitted into any but
botanic gardens, where they may be readily increased from
seed.

ARCTOMYS Palcfisbicornis, in Zoology, the name of an
animal of the rat kind, but very large, being of a middle
fire between the rat and the rabbit; it lives in caves, and
feeds on vegetables, and is a fierce and bold creature. It
ufes its fore-feet as hands, and has a calum of filling on
the buttocks, and in this posture looks very like a
bear. Rav.

ARCTONESUS, or ARCONIUS, in Ancient Geo-
graphy, a cefert island in the Aegean sea. Also, a town of
Alf, near Halacarnus, according to Strabo and Pliny.

ARCTONNESUS, a town of Cythicus, according to
Steph. Byz.

ARCTOPHYLAX, from ipro, Lett. and c?lEroz, I guard, in Astronomy, a constellation, otherwise called
Bootes.

ARCTOPUS, (arctos, the bear's-foot), in Botany, Lin.

Eff. Gen. Char. Male, Umbel, compound. Invol. five-
leafed. Cor. five-petalled. Stam. five. Pijf. two abortive. Female (or androgynous), on a distinct plant. Umbel
simple. Invol. four-parted, spiny, very large, containing very
many male flocculis in the disk, and four female ones in the
two. Seed one, bicocular, inferior.

Species 1. A. cebinatus, prickly-leaved Arctopus. A
handsome plant from the Cape of Good Hope; introduced
in 1774, by Mr. F. Maffion. The leaves are crowded, finu-
ate, and ciliate with spines on the upper surface disposed
darwinse at the sinuses; flowers terminating among the
leaves. It has the general appearance of Eryngo.

ARCTOSTAPHYLOS. See VACCINUM.

ARCTOTHECA. See GURONIA and ARCTOTIS.

ARCTOTIS, in Botany (from arctos, a bear, on account of
the thagone of the plant). Lin. g. 991. Schreb. 1. 42. Ruf.
Composites; corolla free. Julf. Gen. char. Cal. common, round;
with imbricate; lower scales more lax, falcate; middle ovate;
inmost oblong, scariole, rounded, and concave at the end.
Cor. compound, radiate; corollules hemispheric, very many
in the disk; females ligulate, near twenty, longer than the
diameter of the disk; proper of the hemisphericds funnel-
shaped; border quinquefoil; ends reflex, equal; of the fe-
male ligulate, lanceolate, very finely three-toothed; tube
very short. Stam. of the hemispheridae, flaments five,
capillary, very short; anther cylindric, tubular, five-toothed;
the length of the corolla. Pijf. of the hemispherides, germ
clearly visible; flyle cylindric, a little longer than the
corolla; fligma simple; of the females, germ ovate-four-
cornered, villos, crowned with its proper calycle; flyle fis-
liform; ligmas ovate, oblong, thickish, erect. Per. none.
Cal. unchanged. Seecl. in the hemispheridae none; in the
females, foliary, roundilh, villos, crowned with a calycle,
usually of five leaves; leaves flat, opening, spreading. Rec.
viilose or chalky, flatish. Obf. In some of the species the female
floccules of the ray are barred, and the floccules of the disk
fertile, while in others the former are fertile, and the latter
barren. The leaves of the calycle also vary from four to
eight.

Eff. Gen. Char. Rec. villose or chalky; down with a five-
leafed crown. Cal. imbricate, with scales scaricole at the
end.

Species 1. A. calendulae, marygold-flowered Arctotis. Of
Of this species we find the following varieties, viz. *A. colchicum*, with "radiant florets twelve-fold, nearly entire." *A. hypophyllum*, with radiant florets tridif, the middle inflected. *A. triflum*, with "radiant florets four-parted." *A. coriaceus*, with "radiant florets three parted, the exterior one trifid. "*A. superba*, with "radiant florets barren, five parted; leaves uneccinate and rather tomentose." Of the frill, the peduncles are villose, nodding, becket with red bristles; ray yellow, purplish underneath, twisted during the night; the corollines of the disk black on the outside, and with black anthers; the outer scales of the calyx spreading, subulate, short, hirsut. Cultivated in 1725. by Miller. The second is supposed to be the same as *A. sulphureus* of Gaertner. The third has spreading bifide leaves, with reuninate thick terete leaves; disk of the flower black, with yellow flrets, black at noon, ray with four or five parted yellow florets, lead-coloured beneath. The fourth variety has not been described. Of the fifth the peduncles are villous, with hyaline bristles, decurrent in the night, but never a diing; ray growth descending, decurrent during the night; corollines of the disk yellow; anthers yellow. These are all annual, and, as well as all the other plants of this genus, are natives of the Cape of Good Hope. 2. A. ferrata, "radiant florets barren; leaves lanceolate, undivided, tooth-ferrate;" items upright, simple, woody, subpulbiferous; leaves fiddle, scarcely pubescent, somewhat crowded; peduncles terminating, rather very long; calyx fiddle, yellow; corolla yellow, crown of the seeds white. 3. A. tenuifolia, "radiant florets barren; leaves linear, undivided, naked;" items herbaclos, few; leaves filiform or linear, naked; peduncles long, solitary, naked, filiform, bract small, flliform; calyx imbricate; ray yellow; perennial. 4. A. grandisfera, "radiant florets fertile; leaves pinnatifid, toothed, coalesced, three-nerved;" ray very large; petals straw-coloured, with a tinge of red underneath, yellowish near the base, with a dark purple mouth; biennial. Introduced in 1774. Discerned by Maffion. 5. A. plantaginacea, plantain-leaved arctotis; 6. A. tenuiflora, "radiant florets fertile; leaves lanceolate-ovate, serrate, toothed, f1exu1ng; leaves tomentose underneath; disk barren; perennial; flowers from June till August. Cultivated by Miller in 1708. 6. A. argentii, silver arctotis; 7. A. triloba, "radiant florets fertile; leaves lanceolate-linear, entire tomentose;" flowers yellow, appearing in August; biennial. Found by Maffion, and introduced in 1774. 7. A. agrostisfons, "leaves oblong, toothed;" florets of the disk barren; receptacle very woolly. 8. A. tomentosa, a variety in which the whole plant is white, items creeping, and leaves hyrace with two teeth on each side. 9. A. affinis, white arctotis; 10. A. radiata; 11. A. pinnatifida, "radiant florets fertile; leaves pinnatifide, villous, divisions oblong, toothed; item fluff, perennial, villous, with purple streaks; leaves white underneath; corollas of the ray yellow, with red streaks underneath. There is a variety of this with narrow leaves and orange-coloured flowers. Cultivated in 1731, by Mr. Miller. The preceding eight species have the receptacle villous, but in those which follow it is fiddle. 9. A. paradoxus, chamomile-leaved arctotis; "radiant florets barren; e.flavish coloured, longer than the dish; leaves pinnatifide, linear;" flowers elongate, colored, almost the whole of the flowers; when the flowers appear to be a double one. Gaertner has removed this together with the twelfth and thirteenth species to a genus named Urfinia. This species was introduced here by Maffion in 1774. It flowers in August. 10. A. scariosa, southermwood-leaved Arctotis; "radiant florets barren; chaffy feathering the florets of the disk; leaves compound;" item shrubbery; by all the calyces leaflets obtuse, fiddle, fivelosed, f1exuous, spreading. It flower- from April till August, and was introduced in 1774, by Mr. Maffion. 11. A. palaestina, chaffy arctotis; "radiant florets barren; chaffy feathering the florets of the disk; leaves pinnatifide, linear;" item shrubbery, branching; peduncles axillary, long; with few linear simple leaves; calyx and corolla yellow, like a chrysanthemum; ray simple, barren. It was cultivated in 1758, by Miller. The flowers appear from April till August. 12. A. dentata, fine-leaved arctotis; "radiant florets barren; leaves pinnatifide, indented;" item branching; leaves alternate, somewhat rigid, and villous; petals recurved; peduncles long, one flowered; flowers small, with the ray purple beneath; annual; flowers appear in July. Introduced by Mr. Haneman, in 1787. 13. A. antitomesis; "chaffs shorter than the flowers; leaves supra-decompound, linear." This plant, as its name imports, resembles chamomile; ray barren, violet coloured. 14. A. parviflora; "radiant florets barren; leaves linear, undivided, smooth, item branching, brownish, smooth; leaves linear, the length of the finger, smooth; peduncles very long, one flowered, frequently to be transplanted into pots, which are to be placed in a shady situation, until the plants are now rooted; after which they may be exposed to the open air, till the latter end of October (or later, according to the state of the weather), when they must be removed into the green house. While they continue in the house they ought to have an open and dry situation, and be frequently sprinkled with water. They will also require to be shifted into other pots, two or three times every summer; and the pots should frequently be removed to prevent the plants from shrinking through the bushes into the ground. Several of these grow to the height of four or five feet, and as they send off several branches, they require to be frequently pruned. They are seldom without flowers, unless the winter be severe, which renders them very valuable, making a fine variety in the green-house or cape-love; and when placed out in the summer, they produce flowers in great abundance. See Miller's D.G. by Martyn.

**ARCTOTIS.** See **Gorteria.**

**ARCTOTUS, in Entomology, a species of Papilion (Dan. Faske) which inhabits Netherland. The wings are very cut, and brown; both above and beneath is an ocular bipalpiated mark on the anterior ones; and another on the posterior ones, which is very faintly papillated above. Fabri- cius, &c.**

**ARCTURUM infra, a small star of the seventh or eighth magnitude, to the south of arcturus; offered by Mr. Flam- fleed: and so named by him, whose place is not determined in the British Catalogue.**

**ARCTURUS, in Afronomy, a fixed star of the first magnitude, in the constellation of Arctophylax, or Bootes.**
The word is formed of *opercus*, and *opercus*, tail, q. d. bear's tail; as being very near it.

This flar was known to the ancients, as in the following verse of Virgil:

"Arcutus, pluviaque hyades, geminissque triones."

See also Job 9. xxxviii. 32. Scientists have doubted whether the Hebrew word *עַרְכָּלָא* or *עַרְכָּלָא* refers to this flar. For various opinions concerning its meaning, see Schultens, in Job, vol. i. p. 2-9.

Mr. Horneby concludes, that Arcutus is the nearest flar to our system visible in the northern hemisphere, because the variation of its place, in consequence of a proper motion of its own, is more remarkable than that of any other of the flars; and by comparing a variety of observations respecting both the quantity and direction of the motion of this flar, he infers that the obliquity of the ecliptic decreases at the rate of 5° in one hundred years; a quantity which nearly corresponds to the mean of the computation framed by Mr. Euler and M. de la Lande, upon the principles of attraction. Phil. Trans. vol. lxii. p. i. N° 14.

*Arcutus*, in Botany. See Celsia.

*Arcutus*, in Astronomy, a star given by the Greeks to two constellations of the northern hemisphere; by the Italians called Ursa Major and Minor, and by us the Greater and Lesser Bear.

*Arcutus*, in Entomology, a species of Coccus, that inhabits the seas in molt parts of the world. Its specific character is thus concisely defined: scales of the antennae ciliated, with spines. Fabricius and Gmelin. Off. To this may be added, that the front is recta, and armed with about ten unequal spines; the thorax oblong, and aculeated, and the posterior part oft, together with the upper part of the body, tuberculated, brown, and spotted with yellow. This is called Poliophylyxa, by Maregrave.

*Arcualia Ossa*, in Anatomy, a name used by some for the offa synccpitis, by others for the offa temporan. *Arcualis futura*, among Surgeons, denotes the coronal sutures.

*Arcuana*, in Entomology, a species of Phalaena (Tortrix) found in Europe. The wings are pale yellow; on the anterior pair are three curved black bands, and a spot of the same colour; with a black spot in the pink, having three silver dots upon it. Fabricius and Gmelin. Off. Linnaeus describes it as Phalaena Tortrix alta lutea, facieis tribus areuat, macula sigra, tripunctata lincolique dubus argentata. *Nyt. Nat. En. Su.* &c.

*Arcuanus*, in Lithology, a species of Chaledon, found on the Indian and Arabian sea coasts. The tail is bind; twelve spines in the dorsal fin, and body faciated with brown. This species inhabits the shores among the coral rocks, and feeds on marine worms; it is silvery, back cincereus, with a deep brown or black band on the head, another on the breast, and a third extending from the dorsal to the anal fin. The flesh of this kind is edible.

The head is large; front, and iris of the eye, white; gap narrow: jaws equal; teeth minute, and wedged; branchiostegous aperture ample; operculum simple, mucronate in the middle; ventral fins long, black; anal fin black; dorsal fins cincereus.

*Arcaria*, in Entomology, a species of Phalaena (Geometra). The wings are fuscus, with a thin sphen, and a lunated spot of white near the posterior margin. Gmelin. Inhabits Europe.

*Arcatua*, a species of Coeniaella. This is of an ovate form; wing-caves red, with four dots, two bands and a dot at the apex black. Inhabits China. Fabricius. It is of the middle size; the body black, and head whitish; thorax black, whitish in front and on the sides.

*Arcutula*, a species of Cassida, that inhabits Rio Janeiro. It is whitish, with a common black disk; border oval, ring, and arched mark behind, yellowish. This is about the middle size; and the head and abdomen are black.

*Arcuta*, a species of Lepidura, in the Linnean system; that inhabits Europe. The thorax is rounded; shells with four yellow bands, the first formed of three spots; the others curved downwards, Linn. and Donov. Brit. Inf. Gmelin has removed this, and some others of the Lepidura, to the Cerambyx genus; it is therefore Cerambyx Arcutus of that author, and is arranged in the division Calidium.

*Arcuta*, a species of Cicada (foliacea, Gmelin, Membracis, Fabricius). This insect inhabits Surinam. It is black brown; thorax comprised above, with a yellowish arch. Degeer, and Gmelin.

*Arcuta*, a species of Cimex, (oblungus, Gmelin). It is black; back arched; wing-caves white, with a white spot, and black arched mark, four of the tibias elevated and red. Degeer. Inhabits Surinam, and is the size of the common house-fly, Musca domestica, Gmelin.

*Arcuta*, a species of Phalaena, (notula). The wings are white, the curved mark in the middle, and marginal spot behind are black. Fabricius. This moth inhabits Transvaal, and in size and appearance somewhat resembles Phalaena albicollis.

*Arcuta*, a species of Vespula, that inhabits New Holland, and is described by Fabricius. The body is black, variegated with yellow; the pedis to the thorax and abdomen is incurred, and marked with four yellow spots.

*Arcuta*, a species of Musca, found in Germany. It is tenebrosa; with two spots and a black curve at the apex of the wing; and a white dot at the tip. Fabricius. This greatly resembles Musca hyalina. Gmelin also describes another insect under the name Musca arcutae (in the subdivision Syrphus). It is black, with long antenna; thorax spotted on the sides with yellow, and four curved belts of the same colour on the abdomen.

*Arcuta*, in Ornithology, a species of Fringilla, that inhabits the Cape of Good Hope, and is described by Dr. Latham as being of a chestnut colour above, beneath white; head and lower part of the neck black; collar and stripe behind the eyes white. This is also Fringilla arcutae of Gmelin, but his specific character is certainly less expressive than that of the preceding author: it is likewise Pusser Capitis Bona Spei, of Brieno; Crucaft, of Buffon; Meneau du Cap de Bonne Esperance, of the same author; Pl. ent. and crebcent finch of Latham, Gen. Syn.

It is the size of a house-fly; length six inches; bill black; head and neck before as far as the breast are also black; at the eye begins a streak of white, which pales down on each side of the neck, and growing broader, pales round the fore-part like a crecent; hind part of the neck pale brown; back, scapulars, and lesser wing-coverts, chestnut; the middle coverts black, tipped with white; the great covert and quilua brown, edged with grey; tail deep brown; legs brown.

*Arcuation, from arcus, a bow, is used by some writers in Surgery, for an incursion of the bones; such as we see in the case of rickets, &c.*

*Arcuation, in Gardening, a term formerly applied to the practice of raising trees by layers. Switzer observes that in his time, it was the general method of producing such trees as could not be raised from seeds; as the lime, elder, willow, &c.* See LAYING, and LAYING.

*Arcatus*, in Entomology, a species of Scarabeus, found in Saltsburg. It is black, and glossy; shield rufous,
in front; wing-cases frilled with punctures; future, marginal dot at the base, and abbreviated band inclined towards the future, reddish; base obscure; abdomen yellowish; palpi, antennæ, and legs sericeous. Moll. nat. Br. 1863. n. 7. Gmelin.

Arcatus, in Entomology, a species of Phaenodon, that inhabits Brazil. The tail is entire; eight spines in the dorsal line; and four white arched bands across the body. Gmelin. This is Cethosia fuscus arcatus 9 nigric. of Moll. ad Fr. Gmignone of Maregrave; Ascamedon nigra. &c. of Willughby. The length is about four inches. See ARACANU.

Arcatus, in Ornithology, a species of Turdus, that inhabits China, and was first described by Dr. Latham under the name of the Crescent Thrush. Gmelin gives us this specific character. Above chestnut; the eye-brows, lore, chin, and vast, white; cheeks, and creecent on the throat, white; tail rounded; towards the tip black; spec white. But as this author is indebted to Dr. Latham’s account of this bird, his character should have read "cheeks and crescent on the throat black." In the Index Ornithologicus the character runs thus:—rufu-fuscus. corpore fustus supercilii loriuque albus; cervix jugulo politerrae rubescens, genua lancilque fuscus nigros.

The length is eleven inches; bill lead-coloured, pale at the tip; upper parts of the body reddish brown; over the eye a white line; lore and chin white; cheeks black passing in a crescent on the fore part of the neck; on the middle of the back part behind the eye, a patch of loose white feathers; the hind part of the neck; and the breast reddish; belly reddish white; vent plain white; tail long; legs lead-coloured; claws white.

ARCUBALISTA, in the Military Arts, a kind of bajada, probably made after the fashion of a bow. It is mentioned by Vegetius, but the description it contains by him, as too well known then, though now hard to be guessed at.

Those who fought with this weapon were called arcaubalarites, sometimes manubalitarites.

Arucuicio, Arucio, a machine made of board, covered with pieces of horns like the tail of a waggon: used in Italy to prevent children from being overlaid and smothered by nurseries, or others.

Every nurse in Florence is obliged to lay her child in an arcuicio, under pain of excommunication. —See a figure and description of the arcuicio, given by Mr. St. John, in Phil. Trans. No. 442. Abhid. Vol. viii. part iv. p. 46.

Arucudio, Peter, in Biography, a learned Italian; born in the island of Corfu, and flourished in the seventeenth century. Having studied in the college of the Greeks at Rome, where he made great proficiency in literature, he so much recommended himself by his zeal for the holy see, that he was sent to Russia by Pope Gregory XIV. and by pope Clement VIII., in order to induce that nation to submit to the Roman pontiff; but in the course of twenty years, during which he remained in the country, his utmost efforts were only sufficient for obtaining some inducements for those who observed the Romish ritual. After his return he distinguished himself by his endeavours to refute the Protetants on the subject of the Sacraments; and for this purpose he published a work, intituled "On the harmony of the western and eastern churches in the administration of the seven sacraments," printed at Paris in 1672, 4to. Among his other works were, "On the existence of Purgatory," printed at Rome in 1672, 4to. "On the fire of Purgatory," Rome 1657, 4to; and "A collection of the Greek theologians on the procession of the holy spirits," Rome 1659, 4to. In all his performances he discovers talents and erudition, and at the same time strong traces of passion and bigotry. They are written in Greek; but without any pretension to Attic elegance. Arcudo was an indefatigable student, and his sole amusement was derived from his library. He died at Rome about the year 1672 or 1673. Nov. Dict. Hiflor. Fahr. Bib. Grec. l. v. c. 43. § 12. t. 1. p. 477.

Ardueil, in Geography, a town of France, one league from Paris.

Arcularia, in Conchology, a species of Buccinums, in the section Gallea, (that in which the pillar lip is dilated and thickened). It inhabits the Indian sea, and is thus described by Gmelin: shell plicated, and crowned with papilla. This shell is sometimes white, cinereous, or brown, with a white stripe; and is Acherata major of Rumphia, and Bucinum fosseolus of Cronovitis.

Arculphus, in Biography, a theologian of France, flourished about the year 610. Flavius gifted, on account of religion, the Holy Land, Constantinople, Alexandria, and other places, he was thrown by a storm, on his return to France, on the coast of Britain, and humbly entertained by Adamnon, an abbot. To him Arculphus communicated the result of his travels; and the account which he obtained from him in conversation formed three volumes, which were published under the title of "Libri de Situ Terrae Sancti," as Ingolstadt in 1619. Cave. Hist. Lit. t. i. p. 509.

Arcus, in Entomology, a species of Papilio (Dan. Felt.) The wings are very entire, and blue; anterior ones spotted with white; a large black spot, terminating in another of white near the margin of the posterior ones. This kind inhabits Surinam. Off. Papilio Arcus of Eiper is a different insect; viz. Papilio Attus of Gmelin.

Arda, a species of Termes, that inhabits Africa. We are chiefly indebted to Mr. Smethman, who discovered them in Sierra Leone, for the history of these destructive creatures. In their economy they greatly resemble Termes fulvus, and destructor; for like them they attack and devour provisions, clothes, and furniture, and indeed they are in such numbers, and so rapacious, that where they settle, few things can escape them. They can perforate a piece of timber of the greatest magnitude, and in a few hours leave nothing but a thin outer sheat of it. The neels are cylindrical, and from two to three feet high; they are formed of brown clay intermixed with grouts, and various other vegetables, and have a vaulted dome at top, with a prominent entire margin surrounding it. The larvae are the hewlers, and have a pale head; moniform antennæ; no eyes; jaws short and toothed; thorax and abdomen ovate; are of a cinereous lead colour; and the legs pale. The Papes are the soldiers to protect them; their head is large and tesselaceous, elevated and gibbons in front, and obtusely ovated behind; the jaws project, and are forked, black; antennæ moniform tesselaceous, as long as the head; no eyes; thorax small; abdomen ovate, cinereous lead colour; legs tesselaceous. Image, or perfect insect, is black; margins of the segments of the body white; wings incumbent, black, all the legs pale tesselaceous. Fabriscius. The character of this species, according to the last-mentioned author, is thus defined, black; segments of the abdomen white at the tips; legs pale. Gmelin adopts this Fabriescian description.

Arda, in Geography, a town of European Turkey, in Romanis, 60 miles south of Filippopoli—Also a river of European Turkey, which runs into the Mariza, 10 miles north of Trazanepuli.

Aradabigana, in Ancient Geography, a country of Asia, between Albitria and Persepolis, according to Procopius.

Aradachat, in Geography, a place in Armenia, so called from the name of Araxias, denominated in the east Ardechier; in which are seen some ruins of the ancient Aratakata.
ARDACHER, or ARDAGH, a town of Germany, in the arch diocese of Aulria, near the Danube, ten miles south-west of Lips.

ARDAGH, in the county of Longford in Ireland, so called from its elevated situation, at present an insignificant village, but formerly of so much consequence as to have given name to a barony, and to have been a bishop's see. The church is one of the most ancient in Ireland, but cannot be called a cathedral. The see was founded in the middle of the fifth century. In 1658, it was united to the bishopric of Killmore; from which it was separated in 1741, and has since been held in commendam by the archbishops of Tuam.

ARDAL, a town of Norway, 24 leagues north of Christiania.

ARDAMON, or ARDAMA, from ar, water, in antiquity, a vessel of water placed at the door of a person deceased till the time of burial, as a token that the family was in mourning, and to serve to sprinkle and purify persons as they came out of the house.

ARDANIS, in Ancient Geography, a town of Africa, in Mauritania, according to Ptolemy.

ARDASSES, in Commerce, the coarsest of all the filks of Persia; and, as it were, the refuse of each kind. In this silk, they say, the legs, the boughs, the end, and the pages are rifed, to signify the worst of those four sorts of Persian silk.

ARDASSINES, in Commerce, called in France ablaque; a very fine sort of Persian silks, little inferior in fineness to the four, or rather caroubis; and yet it is little used in the silk manufacturies of Lyons and Tours, because that kind of silk will bear hot water in the winding.

ARDATOF, or ARDATOV, in Geography, one of the thirteen districts of the government of Nihui-Nogvorod in Russia, situate on the river Teth, falling into the Oeas.— Alto, a town of this district, sixty miles S. S. W. of Nihui-Nogvorod. N. lat. 58° 20'. E. long. 45° 4'.— Alto, a district of the government of Simbirsk, situate on the Alator.— Alto, a town of this district, ninety-two miles west of Simbirsk. N. lat. 54° 45'. E. long. 45° 44'.

ARDAXANUS, in Ancient Geography, a river of Illyria near Liffis, according to Polybius.

ARDEA, a town of Persia, according to Ptolemy, and Ammianus Marcellinus.

ARDEA, a very ancient town situate on an eminence south-west of Lavium; at the time of the arrival of Xerxes, it was the capital of the Rutuli, governed by Turnus. The Romans established a colony in this place in the year 311. The territory of Ardea was marly and unhealthy. In its vicinities was a temple dedicated to Venus.

ARDENS, in Ornithology, a genus of the fourth order Grallæ. The bill is straight, pointed, long, flitely compressed, with a furrow extending from the nostrils towards the tip; nostrils linear; tongue acuminate; feet four-toed. Gmelin. Dr. Latham gives another character for this genus, viz. a long, strong, sharp-pointed bill; nostrils linear; tongue pointed; toes connected by a membrane, as far as the first joint; the middle claw of none of the species pediculated. Gmelin divides his genus into five sections; and the following are the characters of those sections, with the species respectively referred to each.

* Grifiles; rutilo vivipatra longiori (crested; bill feebly longer than the head.)—Pavonina & Virgo.

** Grus; capite calvo, (cranes; head bald) canadenisis grus, americana, antigone, & gigantea.

*** Cicione, orbitis nudis (storks; orbits naked) cicione, magnaria, & nigra.

**** Aderia; uoque intermedius interdum ferrato, (herons; middle claw ferrated inwardly, dubia, torquata, nycticorax, grifea, jamaicensis, colelanima, ceyxus, purpurea, major, cinerea, gazetta, leucogaster, infeica, uetro, aguia, cocco, johannae, boulo, bossus, herodias, luidovica, vesper, carula, rubiginosa, ludifina, conua, erythrophala, ohula, cyanophala, candidissima, calluna, aquitania, galata, ferruginea, erythropha, lilata, virens, vellaris, botaurus, solonensis, marigii, danubialis, undula, brasilienis, tigrina, lineata, flavus, monemius, alba, nivea, helia, fascia, atra, purpurata, sipadica, squamata, erasmus, leucophala, rufa, lineata, virgata, cana, carusulata, maculata, cinermonaca, punita, badia, philippinensis, nova guinea, cyanopus, maculata, gardeni, fregalesius, exilis & minuta.

***** rollo in medio hiante, (bill, gaping in the middle) pandionis, coromandeliana & scoleopaca. Which fee respectively.

ARDEA avicola auria, Petiver GEE. GS. t. 43; f. 2. This is the Linnæean Columba orizurica.

ARDDEA, in Natural History, the specific name of that kind of Echinorhynchus which infests ardea cinerea, (the common heron.) It is flattened, and has the proboscis clavated. Goeze. Gmelin, c. 282. The body is comically behind, and situated on each side in the middle.

ARDDEA, or ARDEA, in Geography, a town of Persia, in the province of Aderbittan, or Aderbija; situate in the midst of a large plain, and surrounded by mountains which form a kind of amphitheatre. It was formerly a strong city, and had considerable trade; but it was plundered and burnt by the troops of Jengiz Khan, about the year of the Hegira, 619. A. D. 1222. Its grand square, called "Miledan," has a caravanserai, and various conveniences for merchants, who frequent the city, from Turkey, Tartary, Hindostan, and other countries; and near it is a bazaar or market, in which are sold the most valuable merchandise of the produce and manufactures of the country, as well as other articles, European and Asiatic. The tomb of Scher Schi, a celebrated saint, is an inviolable asylum, frequented by pilgrims from all parts of Persia. Caravans are frequently passing through this town from and to Constantinople and Smyrna. N. lat. 37° 20'. E. long. 45° 5'.

ARDDEA, LITTLE, a town of Persia, in the province of Farsian, 18 leagues north of Schiras.

ARDDEC, a town of Persia, in the province of Isk; 43 leagues east of Isphahan.

ARDDECHE, one of the departments of France, derives its name from a river of the Vivarais, which rises near Vals, and discharges itself into the Rhone, near Pont St. Esprit. This department is one of the seven formed of Languedoc, Cominges, Neubian, and Riviere Verdun. It is bounded on the north by the departments of the Drome, Iere, and Lower and Upper Loire; on the east by that of the Drome, which is separated from it, from one extremity to the other, by the Rhone; on the south, by the department of Gard; and on the west by the departments of Noise and Upper Loire. Its superficies is about 1,077,925 square acres, or 550,054 hectares; the population consists of about 275,255 persons; and it is divided into three communal districts. The chief town is Peivas.

ARDDE, or ATHERDEE, a small town in the county of Louth in Ireland, much declined in importance. Near it is a mount of great magnitude called Castle-guard. It is artificial and encompassed with a double ditch. It is now all planted with wood, and has a very romantic appearance. The perpendicular height of the mount from the bed of its foundation, is nearly ninety feet, and the depth of the main trench betwixt thirty and forty. The circumference at the top is not less than 140; and round the foundation it is upwards of 600 feet. There appear, from foundations yet remaining, to have been two concentric octagonal buildings upon
ARD

upon the summit of it. The Danes are supposed to have been the original authors of this and similar mounts; the design of which, whether for defence, or for burial places, or for holding assemblies of the people, has not been ascertained. Latitude, from observation of Dr. J. Hamilton, 33° 50' 30".

ARDELICA or ARIOLICA, now Paphlagonia, in Ancient Geography, the place in Italy, at the confluence of the lake Benevent with the river Mincius, where Attila had an interview with Leo the Great, and the deliverance of Italy was purchased by the immense ransom or dowry of the princes Honorius.

ARDELL, MAC JAMES, in Biography, an eminent engraver, was born either in Ireland or in England, of Irish parents, and resided chiefly in London, where he died, June 2, 1765. Bufen calls him "one of the best engravers in Mazoziotive that England ever produced." His works are chiefly portraits, from the most celebrated painters of his time. His bell engravings are said to have been from Van- 
dyke. Two most beautiful prints from this master are, “Time clipping the wings of Love,” and “Moes in the ark of bulrush.”

ARDEN, OR ARDON, in Geography, a county of Swif-

ARDENBURGH, a town of Flanders, and formerly one of the most considerable maritime towns of the country; but now much decayed; four leagues N. E. of Bruges, and two S. E. of Sluys.

ARDENELLA, a town of Hindoostan, in the country of Coibatore, forty miles south of Serigapatam.

ARDENNES, a forest of France, of ancient fame for events of chivalry, extends from Rheims to Tournay, and in the north-east to Sedan. Its extent, however, has been very variously affirmed. From this forest one of the departments of France derives its name. It is one of the four composed of the former Champagne, Charleville, Sedan, Carignan or Mounfou, Philippeville, Mariembourg, Givet, and Charlemonl. It is bounded on the north by the department of Sambre and Meuse, and of尽快; on the east, by those of Sambre and Meuse, of the Forests, and of the Meuse; on the south, by those of the Meuse, the Marne, and the Aisne; and on the west, by those of the Aisne and of the Jamaica. Its superficies is about 1,029,150 square acres, or 352,181 hectares; the population consists of 353,602 persons; and it is divided into five communal districts. Its chief town is Mezieres.

ARDENSAEN, a town of Aisne, in the province of Al-

daux, thirty-eight miles north-west of Arzingeran.

ARDENT, ARDENS, from ardor, to burn, something hot, and as it were burning. Ardent fever is a burning fever, otherwise called causus.

ARDENT spirits are those distilled from fermented vege-

faces; thus called because they will take fire and burn; such as brandy, spirit of wine, rum, arrack, &c.

ARDENTES, in Middle Age Writers, an appellation given to those afflicted with the ignis facer, or erysipelas. They are thus called, as seeming to be seared or burnt with the diphtheria.

Hence also the abbey of St. Genevieve at Paris is called domus ardentium, because, as it is said, great numbers were cured of that distemper at the shrine of this saint, in the reign of Louis VI.

ARDEOLA, and ARDEOLA NACIJA, in Ornithology, the names by which Brisson calls the Linnean Ardea minuta.

ARDERN, JOHN, in Biography, contemporary with Guido of Chauliac, acquired considerable reputation for his skill in the practice of surgery and medicine. He was fe-
ted at Newark in the year 1349, when the plague broke out, and continued there until the year 1370, when the fame of his practice occasioned him to be called to London, where he was employed by persons of the first rank and con-
sequence. He was successful in the cure of fistula in ano, having very much improved the method of performing the operation for that complaint, which, before his time, was effected either by the actual cautery, or by sawing through the rectum with a thread, which must have been a very painful operation. His treatise on fistula in ano, the only part of his large work that has been printed, was translated and published by John Read in the year 1538. He invented a new instrument for giving gynery, upon which he valued himself much, and with reason, as it seems to have been pro-
ductive of much profit to him, "having gained much credit (he says) for his skill in injecting them an hundred times, and in distant places": whence we learn the practice of giving them was little used or understood in this country at that time. He was very careful to make a good bargain with his patients, before he entered on the cure; "to provide for as large a sum as he could get, and to take security for the payment;" a practice, Aikin observes, that prevailed in France at the beginning of the last century. We are told in the eloge of M. Marthou, published in the memoirs of the Royal Academy of Surgery, that when he was ap-
pointed full surgeon to Louis the Fourteenth, in the year 1703, he generously threw into the fire obligatory bonds from his patients, to the value of 20,000 livres. Friend's Hist. of Physic, vol. ii. p. 325. Aikin's Biog. Med. of Med.

ARDERO, in Geography, a town of Italy in the king-
dom of Naples, and province of Calabria Ultra, seven miles south of Gierace.

ARDERS, in Agriculture, a term provincially applied to signify fallowings or repeated ploughings of land.

ARDES, in Geography, a narrow peninsula in the county of Down in Ireland, formerly a county of itself. It lies between Strangford lough and the North Channel, and is reckoned tolerably fertile. The people of the whole dis-

ARDIFERT, in Geography, though now a small decayed village, was formerly the principal town of the county of Kerry in Ireland, and, till the union, retained the privilege of returning two members to parliament. It is also a bishop's see, which includes the whole county of Kerry and a small part of Cork. It is supposed to have been founded in the fifth century; and was at an early period incorporated with Aghadoe as to form but one diocese, which was sometimes called the bishopric of Kerry. In the civil 

ARDGLASS, a decayed town of the county of Down, in Ulter, Ireland; about seven miles from Downdistick, situated on a small harbour of the same name. It was, in

4 N 2 the
the reign of queen Elizabeth, a place of considerable trade; and gave the title of sail to a branch of the Cassandra family. The duke of Marlborough was last in turn to be called the beginning of Chalks the first reign. This name is very considerable. There is a large range of building, erected by the inhabitants, the New Works, though they have no tradition of its design or use. It extends 2,241 feet in length, but is only 90 broad. It has three towers in front joined to it, one at each angle, and one in the center. There are also the remains of several other towers, walls, and gates; and within the N. E. point of the harbor, there is a curious natural cave, with a large entrance on the shore. Tour through Ireland — Dublin, 1788.

ARDILA, or Ardhi, in Ancient Geography, a river of 11 km, according to Stephan. Byz. and Strabo.

ARDIERE, in Geography, a river of France, which runs into the St. Martin, in the principality of Durbu.

ARDILIA, a river which rises in Spain, and discharges itself into the Guadiana, near Moura, in Portugal.

ARDISIA, in Botany, Lin. g. Schults. 1755. Swartz. prod. 46. called into Angiullaria and Bifidae. Juss. 420. Cal. Lin. 1753. Horst. Gen. Char. Cal. punctum, one-leaved, five-clawed, leafy, fimbriate, obscure, coloured, permanent. Cor. one-petalled, tube short, the length of the calyx; border five-petalled; parts lanceolate, scented, spreading, at length reflex. Stam. filaments five, fimbriate, upright; anthers acute, upright, bifid at the base, converging at top round the style. Fil. germ superior, ovate, very small; style fimbriate, longer than the stamens, upright, at length spreading; stigma simple, acute, permanent. Per. berry roundish, large. Seed fingle, roundish, covered with a hard, bristly rind, like a nut.


Species 1. A. exsua, harel-leaved ardisia; anguillaria bahamensis. Garnt. H. 1. 1572. " Racemes axillary, simple; leaves ebovate, cartilaginous, ferrate at the edge; clefts of the corolla almost twice as long as the leaves of the calyx; flowers inserted into the corolla." This tree is a native of Madagascar, where it was discovered by Mathon, and introduced here in 1784. 2. A. exsua. Swartz. prod. Sloane jam. 2. 58. 1. 205. f. 2. " Flowers panicled; leaves elliptical, entire, serrated; fimbri obscureus." Leaves thick, oval, entire, evergreen, shining, very smooth, alternate, smooth, fimbriate, attenuated at the base; flowers at the top of the branches, in numerous racemes, wheel-shaped, with a long tube of a red colour; berries smaller than that of the preceding species. A native of Ceylon. 3. A. tenfifolia. Swartz. prod. Sloane jam. 2. 58. 1. 205. f. 2. " Flowers panicled; leaves elliptical, entire, serrated; fimbri obscureus." This tree rises to about 40 feet high, having an afro-coloured smooth bark; leaves very smooth, of a dark green, four inches long, on short foot-stalks; flowers purplish. A native of Jamaica. 4. A. coriacea; " flowers panicled; leaves oblong, entire, velvety, coriaceous." 5. A. floribunda; " flowers panicled; leaves oblong, lanceolate, acuminate, wrinkled; stem fimbrius. Pubescent." 6. A. latifolia; " racemes lateral, or axillary compound; leaves umbellate; leaves obovate, acuminate; entire; fimbri obscureus." 7. A. alpigena; " racemes axillary, simple; leaves fimbriate, lanceolate, ovate, marked with lines; stem fimbrius.

The four last-mentioned species are natives of the West Indies, and are hitherto only known from Swartz's catalogue.

ARDISTAMA, in Ancient Geography, a town of Afia, in Georgia, according to Ptolemy.

ARDMORE HEAD, in Geography, a noted promontory on the south coast of Ireland, in the county of Waterford, a little to the east of Youghal bay, N. lat. 51° 56', W. long. 7° 24'. Near this is the village of Ardmore, an ancient episcopal see, and thought to have been a Daithi settlement.

Its round tower is still in existence. The name Ardmore, signifies a great eminence. Smith's Waterford and Collect. de R. H. Hib.

ARDORIUS, a mountain in Nova Scotia, between Windsor and Halifax, 11 miles N.W. from the latter, reckoned the highest peak in the province, and affording a fine prospect of all the high and low lands about Windsor and Falmouth, and the distant country bordering the habit of Minaas.

ARDONI, a town of Italy, in the kingdom of Naples, and province of Capitanata, 12 miles north of Alcioli.

ARDORIUS, in Ancient Geography, a town of Ilyria, far from the sea, in the territory of the Labarumians, according to Ptolemy.

ARDONIUS, Geography, a town of France, in the department of Lys, and chief part of a canton in the district of Bruges. The place contains 6,875, and the canton 12,105 inhabitants: the territory includes 774 square kilometres and 4 communes.

ARDRAH, or Arder, in Geography, a kingdom of Africa, on the Slave coast, bordering on Whydad. This kingdom extends for a considerable distance into the northern and interior country, abounds with populous towns and villages, and is in general fertile and well cultivated. The inhabitants are warlike. It is bounded on the west by the Rio Volta on the call by the kingdom of Darien proper, on the south by the ocean, and on the north-north-west by the kingdoms of Oyo and Algheri or Ulcinum. To the south, or sea coast, Ardrah is very confused; and as it extends northward, widens into the form of a triangle. The coast, commencing four leagues east of Great Porto, and ending at Acqua, comprehends the space of twenty-five leagues, if the province of Jachen, which has a prince at present, is added to Ardrah, he included. Bofman and Barbier divide it into Great and Little Ardrah; comprehending the other parts of the maritime coast, and under the latter form a triangle. The coast is low and flat, but rises by a gentle ascent towards Jachen. North of Jachen, are Offra, Great Foro, and Afem, the capital of Ardrah. The other principal towns are Iago and Bai. Iago or Iago has two gates to the south, and is washed by the river on the north, that falls into the Rio de Formosa, or river of Darien, at Bai, where the Dutch have a small fishery. Between all the cities are great roads, and canals are cut from one river to another, which, by the canals that traverse them, indicate wealth and industry. The valleys of Ardrah are pleasant, and produce wheat, millet, yams, potatoes, lemons, oranges, cocoa-nuts, and palm-wine. In the low and marshy grounds near the sea, they make salt by evaporating the diluted water; and with this they carry on a considerable trade with both Oyo and Offra. By the river of Oyone, which is the fall in the kingdom. The air is, in general, wholesome. The vulgar, who can neither read nor write, use a small cord tied in knots, to each of which they affix certain ideas, and thus they convey their sentiments to a distance. The manners, do, and religion of the Ardrahans resemble those of the inhabitants of Whydah; and polygamy is equally allowed in both countries. The inhabitants of the sea-coast are employed in fishing, and manufacturing salt; and those of the interior country in husbandry. But they have no ploughs nor instruments of agriculture; the whole labour being performed with the ipade and mattock. Instead of a public burying-place, the inhabitants of Ardrah are interred in a family-vault constructed in their own houses.
As to the government of Ardash, it is monarchical and despotic. The court is numerous and splendid; and the chief-priest is second in dignity, and prime minister in temporal as well as in spirituals. The crown is hereditary; and its revenues arise from heavy capitations on the natives and foreigners, the sale of slaves, duties on foreign trade, taxes upon markets and the necessaries of life, and the confiscation of the estates of governors. Disobedience to the king's commands incurs the punishment of beheading; and the consequence is, that the wives and children of the offender become the slaves of the crown. Inoffensive debtors are sold at the pleasure of the creditor; and the violation of the marriage bed is punished with servitude. The goods proper for importation to Ardash are large white beads, glass crystal ear-rings, gilt hangers, iron bars, failures, knives, copper bells, guns, copper and brass basins, coloured taffeties, striped printed silks, embroidered handkerchiefs, long white horse tails, looking glasses, large umbrellas, brandy, china, Indian silks, gold and silver in dust, with English and Dutch coins. Mod. Us. Hist. vol. xiii. p. 359-374.

ARDRE, a river of France, which joins the Loire at Nantes.

ARDRES, a town of France, in the department of the Straits of Cainis, and chief place of a canton in the district of Cains. On an open plain between Arette and Guines, was the celebrated interview of Henry VIII. of England with Francis I. king of France, in 1510. The two kings and their attendants displayed their magnificence with an emulation and profuse expense, which procured it the name of "the field of the cloth of gold." Feasts of chivalry, parties of gallantry, and such exercizes as were reckoned in that age most free and elegant, rather than serious business, occupied both courts during eighteen days that they continued together. After the wrestling between the French and English was concluded, in which the latter gained the prize, the two kings retired to a tent, and when they had drank together, the king of England feized the king of France by the collar, saying to him, "My brother, I must wrestle with you!" and he endeavoured once or twice to trip up his heels; but the king of France, who was a dexterous wrestler, twisted him round, and threw him on the earth with prodigious violence. The king of England wished to renew the combat, but was prevented. Robertson's Ch. V. ii. p. 110.

ARDROSSAN, the name of a small promontory on the west coast of the county of Ayr, terminating in a ridge of rocks running out into the sea, twelve miles W. N. W. of Ayr.

ARDSALLIS, a village in the county of Clare, Ireland, near which is the abbey of Quin, the whole building of which, including the cloisters, dormitories, halls, &c. as well as the chapel, is still in a state of tolerable repair, except the roof. The buildings are in a good style of Gothic architecture, well contrived and neatly executed.

ARDISCHIR, or Artaxerxes Babegan, in Biography, and Ancient History, a Persian king; and founder of a new dynasty; under the appellation of Saffianides, was defeced, as his enemies say, illegitimately from an offere family; ni. by the fatti ry of his adherents, from a branch of the ancient kings of Persia, reduced to an humble station. If we credit the former, his mother was the wife of a Tanner, whose name was Babec, and his father a common foelder, of the name of Saffian: from the former, Artaxerxes obtained the surname of Bahegan; and from the latter, all his descendants have been called Saffianides. However this be, he was well educated, and served with great reputation in the armies of Artaban, the last king of the Parthians; but being driven into exile and rebellion by royal ingratitude, he fled into Persia proper where it is said his grandfather had been a governor, and took up arms, in order to assist the throne, as lineal heir of the monarchy, and also to relieve Persia from the yoke of the Parthians, under which they had groaned above five centuries, since the death of Darius. The Parthians were defeated in three great battles; and in the heat of their battle King Artaban was slain; so that in consequence of it, the spirit of the nation was for ever broken. Ardshir then affirmed the sovereignty, with the title of "King of Kings," which he had been enjoyed by his predecessor, and his authority was solemnly acknowledged in a great assembly held at Balsch in Khorasan. This great revolution, which established the empire of the Saffianides over Persia, till the invasion of the Arabs and the fatal influence of which was soon experienced by the Romans, happened in the fourth year of Alexander Severus, 226 years after the Christian era.

ARDUTHA, a town of Scotland, in the county of Ayr.

ARDROSA, in Ancient Geography, a city of Dalmatia, which was taken by Tibetius.
areas in country, or the shade of country.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.

**AROUND** the name of a plant given in honour of

**Cardona** at the gardens of the king of Barcelona.
proper perianth three-leaved. Cor. petals three, acuminate, rigid. Stam. filaments nine, the three outer longer than the others. Female flowers, in the same spadix; proper perianth and petals the same as in the male. Per. berry subovate, fibrose, surrounded at the base with the imbricate calyx. Seed ovate.

Eff. Gen. Char. Cor. three-petalled; male nine-flowered; female a drupe with an imbricate calyx in general use.

Species 1. A. catechu, (Herba calceata) ; leaves folded back, opposite, and bittern. A. jasmin. Gaertn. f. l. 10. Pinanga, Rumph. Amb. 1. 46. t. 5. Compa, Rhed. Mal. i. p. 5. t. 5—8. This palm grows to the height of forty or fifty feet; trunk straight, round, about six or eight inches in diameter, and covered with a smooth ash-coloured bark marked with parallel rings. The fronds spring forth in pairs, decumbent, encircling at their base the two of the trunk, and forming an oblong head larger than the trunk itself; they are about six or seven, unarmed, reclining, six feet long, on a stipe four feet in length. From the axils of the fallen fronds issue the sheaths which inclose the flowers and fruits. These sheaths are simple, sharp-pointed, white, coriaceous, thin, flaccid, deciduous, nearly two feet in length, six inches broad, and defended by a wide involucre, formed of the dilated base of the frond involving the spadix and spadix, spadix axillary, branched, reclinata, spadix linear, containing male and female flowers condensedly mixed; flowers white, very small, triangular, smell sweet but faintly morning and evening; the calyx of the male is three-leaved, but that of the female six-leaved, imbricate and unequal. The fruit, according to Gesner, is a borne drupe, or berry, having a thin cuticle and a thick filamentous pulp; shell very thin, brittle, white, with arched red veins; fruit of a rounded conical form. A native of the East Indies. The Indian drug formerly called terra japaena, and now catechu, was very generally considered to be an extract prepared from the seeds of this palm; and hence Linnaeus in his Mat. Med. has referred the catechu to the area here described; but it is well known at present that this drug is manufactured from a species of mimosa. The trivial name of catechu, as tending to mislead, should therefore be abolished here, and confined to the mimosa. The fruit of the area (betel-leaf) is in general use by the Indians, who cut it into slices, and present it with a portion of terra japaena and shell-lime to their guests in all visits, wrapped in the leaf of a small tree called pain. It is chewed like tobacco, and tinges the saliva of a red colour, hence the following lines in Mifs. Nat. Cur.

Quis foliis credat commixta calce tenebri,
Cum fructu loci Indos vefci, unde orae eurent
Purpurum ejiciunt succum, tam dentibus aris
Horrendum arringunt, et dentibus ore minatur?

2. A. oreziformis, (fronds pinnate; leaflets smooth, three-nerved.) Gaertn. f. 1. 23. A. sylvestris. Lour. Cochinch. 568. Pinanga oreziformis, Rumph. Amb. 1. 46. t. 5. f. 1. c. This is a slender palm, growing to the height of ten feet; fronds more than three feet in length, without prickles; stipes triangular, dilated at the base, coriaceous, embracing the stem and fructification; leaflets two feet long, opposite, triplicate, dentate, either pointed, or end bitten; spathe membranous, white, flint; spadix spaded; spadix linear, with the flowers regularly disposed, one female between two males; calyx of the male three-leaved, with subulate unequal leaflets; enolals three-petalled, almost closed; anths twenty-four, linear, without filaments; calyx of the female permanent; its leaflets broad, obtuse; germ oblong-ovate; stylo none; stigma three-leaf; berry ovate, red, scarcely larger than a grain of wheat; pulp or rind thin, fibrous, smooth, adhering to the seed, so that the cell is not inrolled with its proper coat, as in the preceding species; seed ovate, conical, hollowed, at the base within which is a very minute testa; it is solid, horny, and half an inch in length. A native of Cochinchina, Ambon, &c. Its fruit, though much smaller than that of the preceding, is also used in paans. Although this palm has the habit and fruit of the areca, yet the flowers and position of its flowers threw it to be very nearly allied to the Caryota. 3. A. orienae, cabbage-tree; 'leaves quite entire," Jacq. Amer. 278. t. 170. p. 135. Palma aligiafula. Mill. Sloane, Browne. The cabbage-tree is the highest of the American palms. Some authors say that it frequently rises to above 200 feet in height, with a trunk no bigger than a man's thigh, and covered with a coat which is impenetrable to a musket ball. Modern writers, however, describe it from thirty to one hundred feet. It is very different from the East Indian areca. The sheaths of the leaves are very close, and form the green top of the trunk, a foot and a half in length. Below this come out green shining spathes, which fall off when the branching spadix bursts forth. The calyx is one-leaved, cut to the middle into three segments. The fruits are oblong, obtuse, berries of a blue purple colour, and about the size of an olive. Obtaining a stone or nut which is oblong, membranaceous, smooth, brittle, inlaid with a very hard cartilaginous kernel. Within the leaves, at the top of the palm, is found a white heart of eight or nine inches in circumference, which is called cabbage, and which is esteemed a great luxury by the inhabitants, who eat it either raw as fallad, or fried with butter, as well as boiled, and compare its taste to that of artichoke. The seeds of this beautiful tree were first carried to Jamaica by admiral Knowles, when governor of the island, and it has since been cultivated with great care. It is there planted for its beauty, and seldom or never cut down for the cabbage or for any other purpose. The West Indian cabbage-tree was introduced into the king's garden at Kew by Hinton East, esquire, in 1758. There is also a species of palm, called by Solander Areca Sapidus, which grows spontaneously in New Zealand, and abounds in Norfolk island: but the fructification of it is not known. Many of Miller's Dict.

ARECA, in Ancient Geography, a town of Syria, in the Comagone, not far from Antioch, at the foot of mount Taurus.

ARECA, or Karle, in Geography, an island of Africa, on the east coast of the gulf of Peru, between Abufecheir and Bender Rigk, one league south-west of Ormus, about three leagues in circumference. It contains only a single village; but the aqueducts cut in the rocks, which still remain, shew it to have been more populous in proportion to its extent. The Dutch attempted to establish a factory and build a fort here, but they were expelled by the Arabs under the conduct of Mir Mahanna, in the year 1765.

ARED, Arab, or Arab, one of the two principal districts of the province of Neger or Nejasj in Arabia; the other being called Kerje or Kerfje. This district borders on Hejar or Lahja to the east, and contains a district called Harina, anciently celebrated and full known under the same name. Its dependencies are Ajene or Aijana, a town which produced Abud al Wakhfe the new prophet, and Munfaha. Niebuhr mentions other towns of Ared, among which is Jcbria on the confines of Lahja. See Arab.

AREIRA, in Botany. See SCHINUS.

AREKEA, see AREEKO.

ARELATE, ARELATUS, now ARLs, in Ancient Geography, a city of Gaul, situate to the left of the Rhone, at the place where it divides itself into three branches, near
its mouth, and belonging to the Salvii. At this city Car-
far, when he determined to lay siege to Marseille, fitted a
squadron of twelve long vessels; and Strabo speaks of
this place as a commercial emporium. Pompeius Mela
speaks of it as one of the richest cities in Gallia Narbon-
na; and Pumy, Antemolus, and Strabo represent it as a
colony. The colonies conducted thither under the name of
Thebans were detachments of the fifth legion, whence it
was called Colonia Septimiana. When the Roman
province was divided into Narbonna and Vercellian,
Arelate belonged to the latter; and in the time of Co-
stantine, it was extended, by means of a bridge, from
the left to the right side of the Rhone, and the right
extremity celebrated on it the Circensian and Olympic games, in 311.

The emperors Valentinian and Honorius honoured it with
many fabled privileges, whence the poet Ausobius called it
“the Rome of Gaul.” It became at length the seat of a
prætorian prefect, and was in reality the chief city of the
Gauls. Whil st its civil state was improved by its popu-
lation and commerce, and the distinguished patronage of
the Roman emperors, its ecclesiastical power was also aug-
mented by the activity of its bishops. By the council of
Tours, in 387, it was erected into a metropolis; the fe-
asts likewise flourished in this city; and the fertility of its
territory gave it the appellation of “Thomas,” from the
Greek word ἵθα, the bread. The amphitheatre of this
city, though it was never completed, is still one of the
finest monuments of antiquity belonging to the Gauls.

By an infraction it appears, that the flocks of the gladi-
ators were exhibited in this place. See ARENS.

ARELIS, in Botany. See ARELIS.

AREM, or ALAREM, a square mound or dam, which
formed a suspended reservoir above the city Saba, whole
ruins captured an inundation, famous in calmer writers.
Sale’s Prel. Disc.

The word arem is Arabic, and literally signifies
some mound or dam, for the containing of water.

AREMBEBG, in Geography, a town of Germany, in
the circle of the lower Rhine, and capital of a duchy to
which it gives name, situated on the Ahr in the Eifel, six-
teen miles S.S.W. of Bonn, and twenty-six south of Co-
logon. N. lat. 50° 32’. E. long. 6° 74’.

AREMBOBST, in Ancient Geography, a town of India, on
this side of the Ganges, according to Ptolemy.

ARENA, among the Romans, sometimes figured the
name with an amphitheatre; viz. a place where the gladi-
ators had their combat. The word is Latin, and signifies
fand; because the place was always freel of sand or
faw-dust, to prevent the gladiators from flinging, and to con-
ceal from the view of the people the blood f-ll in the com-
bat. Properly speaking, See Neat was only the pit or space in
the middle of those places where the atheists and gladiators
performed. The arena was the same thing with regard to
the gladiators, that the campus, or field, was to soldiers
and armies; viz. the place where they fought. He who
fought in the arena was called arenarius. Nero is said to
have frequed the arena with gold-dust.

ARENA, in Architecture, is the middle or body of a tem-
ple, and comprehends the whole space between the ante
and the extreme wall of the building.

ARENA CIUSEPPE, in Biography. See GIUSEPPE.

ARENA, in Geography, a river of Sicily, which runs into
the sea near the town of Mazer.—Also a town of Italy,
in the kingdom of Naples, and province of Calabria ultra;
sixteen miles east of Nocera.

ARENA, is also a port in the island of Puna, in Guayquil
bay on the western coast of South America, eight leagues
E.M.E. from Santa Clara, where all ships bound into
the bay take pilot.

ARENACEA, in Botany, a species of Phalacus,
in the Bromeli family. The spikes are yellowish: the first
pair sprinkled with black spots above. Distinguishes the Cape
of Good Hope. See GESMEIN.

ARENACM, in Ancient Geography, Procris or Arcis,
the name of a Batavian fort constructed on the Rhine, not far from the place where this river separates to
form the Veland. Tuchman informs us, that Aquileius
afterwards an army in this place to attack the Batavi.

ARENUS, or AREAE, a people of Alba Minor in 148, in the vicinity of Pompeii.—Arenus was also a place
of Scars in Batiaca, on the coast of the Thracian, extending
from the mouth of a fresh river, where was seated Colonia,
the modern city of Thess.

ARENATU, from arena, ground, in Botany, sandwort.

ARE, or AREN, of AREN, five-leaved; leafless oblong, acuminate, spreading,
perennial. Pet. petals five, ovate, entire. Stem. fla-
mum four, subulate, five, alternate interior: authors
roundish. Pet. petales ovate; style from erect reflex; lig-
ament thickish. Per. capsula ovata, covered, one-celled,
three or six-valved. See very many, kidney-shaped. Ovul.
The number of anthers is not constant.

Eff. calyx perianth, spreading; petals five, entire. Calyx}
superior, one celled, many-seeded.

Species 1. A. pholadis, a sandfounder, or thick-wood.

ovate, acute, fleshy; calyx obtuse, nerves, smooth; petals
recurred, smooth, entire; flowers white, appearing in June
and July; capsule roundish, three-valved; seeds large,
black, obvate. Common on the sea-coast. 2. A. tetragro-
ica, square foundowrt; “ leaves ovate, keeled, recurved,
produce four ways; ” petals almost upright and, very numer-
ous, shorter than the flowering stems; flowers marked
with lines, in a head, upon terminating bifid peduncles. A
native of the Pyrenean mountains, flowering in July. Intro-
duced into Kew garden in 1776, by Dr. Ortega. B. pto-
C. 4. 140. A variety with “pointed recurved leaves, and
aggregate flowers.” 3. A. biflora, two-flowered foundowrt:
leaves obvate, obtuse; fruits succulent, peduncles two-
flowered, lateral; its leaves referable those of wild thyme,
roundish, even; two linear bracts at the division of the
peduncle, and also on the other pedicel. A native of the
high Alps of Savoy and Switzerland near the melting snow.
4. A. interflora, side-flowering foundowrt; “ leaves obvate,
obtuse; peduncles lateral, two-flowered. Its stem is short,
small, simple; leaves smooth, on short footstalks; pedun-
cles fingle, long, petiolate; corolla longer than the
caulx. Discovered by Gmelin in Siberia. 5. A. trinervia,
f. 4. 31. Flor. Dan. 429. “ Leaves ovate, acute, petiolate,
nerved,” with the keel of the calyx rough, and obscurely
trinerved, Smith; root fibrous, annual, items about a span
high, slender, creont, branched, round, hairy, and beset
with leaves; leaves three or five-nerved, ciliated; peduncles
one-flowered, long; flowers small, white; leaves of the
caulx lanceolate, acute, keeled, trinerved, rough on the
back, and at the edges membranaceous and ciliated; petals
obvate, scarcely the length of the calyx; capsule ovate,
with an hexifid mouth; seeds small, smooth, black. This,
like the first, is a British species; it grows in woods and
wet flat-ted situations, flowering in May and June. 6. A.
"Leaves ovate, acuteta, acute;" leaves fertile, pointed,
calyx at the base; corolla twice the size of the calyx;
leaves of the calyx oval, pointed, nerved; the flamens
are placed on a circle of nectariferous glands. See Villars'
Dauph. 632. According to Linnaeus, it is a native of
mount Abraham in the Rhenish Alps (Geffius); and Villars
states it to grow on the high mountains of Daurphiiz.
In the Kew catalogue, however, we are told that it is a
native of Iceland, whence it was introduced by Sir Joseph
Banks in 1773. 7. A. balearia, majora short-andow. L'Her-
r.ierit. Fop. Nov. 29. t. 15. "Leaves ovate, railroad, rather
flatly; stem creeping; peduncles one-flowered." A peren-
nial growing in tufts, creeping and taking hold in
its roots; leaves opposite, petioled, acuminate, entire, nerved
with short hairs; petals terminating, solitary, long,
crested, one-flowered; flowers large, white, with two
opposite, sessile, lanceolate bractes. A native of Majorca
and Minorca. S. A. multi"Ficus, many-flowered short-andow;
off*, Hall. havg. n. 6. t. 17. "Leaves ovate, nerved, sessile,
acute; corolla larger than the calyx;" leaves more or less
ciliate; flowers very large. Some botanists consider this
as a variety of the ciliata, and Villars thinks it is a variety of
the fumiculollia. 9. A. fumiculollia, thyme-leaved short-andow.
"Leaves ovate, pubescent, rough; calyx hispitate and common,
only five-nerved;" root fibrous, small, annual; stems many,
about six inches high, spreading, rigid, branched, round,
pubescent, dichotomous at the top; leaves small, ovate,
pointed, entire, oblonger nerved; peduncles erect; flowers small,
white; petals shorter than the calyx; leaves of the calyx
ovate, acute, hispitate, those that are exteriorly nerved,
interior three-nerved; calyx ovate, acute, pubescent,
in the mouth; flowers a yellow brown, tubu-
lar. A common British plant; growing on walls,
and dry barren or sandy situations. It flowers in June or July.
10. A. triflora, three-flowered short-andow; "leaves lance-subulate,
ciliata;" branches mostly three-flowered; petals marked
with lines, obtuse; its items are numerous, about four inches high,
diffused, round, pubescent; leaves like those of juniper;
petals terminating, three-flowered; bracts two, ovate,
ciliata; petals obvolute, twice the length of the calyx, white,
marked with lines; pillil shorter than the flamens. A native
of the south of Europe, on rocks, perennial. 11. A. mont-
tana, mountain short-andow; "leaves linear, lanceolate, rugged,
items barren, very long, procumbent." Its leaves form
a tult about the root, bristle-shaped, spreading, of a
fining green; those on the item are shorter than the internodes,
item-clasping; flower-flèmes half a foot high, hairy, bearing
two or three flowers at the top on long peduncles; calyx
three-keft, with the leaflets separate; petals twice as long
as the calyx, white, marked with lines, ovate, long,
flattened, at the base, pubescent; flowers about one
long. Linnem remarks that the flowers are very large,
and the fruit pendulous. A native of the south of France,
pointed; filipules manubraceous, hiasiating;" seeds compressed,
angular, roughish, Smith. Its root is small, <a href="https://www.nature.com/articles/89" target="_blank">ultral</a>, branched,
annual; items prostrate, divaricate, branched, round, smooth;
leaves linear, very narrow, acute, with a sharp point, gla-
cious or whitish, nearly the length of the internodes; filipules
from under the leaves, opposite, item-clasping, rigid, white,
acute, jagged; panicles terminal, dichotomous; flowers of
a bluish-fic-colour; the division of the calyx lanceolate,
biflute, with dry edges; petals shorter than the calyx; cap-
ful ovate, three-valved; seeds many, brown, angular, rough,
with little tubercles. A British plant growing in sandy
fields, and flowering in July and August. 13. A. marina, sea
media. fp. pl. exclaves synonymus. Alfine fumiculollia close media.
filipules scarious, hiasiating; seeds compressed, marginated,
smooth." Smith. Its root is fibreoid-shaped, annual; items
prostrate, very smooth; filipules similar to those of the rubra;
flowers larger, of a pale flesh or purpureous colour; capulfe
three-valved, longer than the calyx; seeds in having a
dilated membranous white filiated margin. This species and
the rubra are found sometimes to approach as closely as
the pernian of France, Germany, Switzerland, and
"Leaves fewemfemificidric, flufhy, obtuse; petals lanceolate;
peduncles terminal; mostly cinate." Its items are prostrate,
with many slender divided branches, and a pair of leaves
at each joint; these leaves are oblong, narrow, and of a pale
green; petals white, acuminate, sometimes fringed and
smooth; seeds minute, compressed, black, shining, perennial.
A native of Bavaria, Monte Baldo, and Little St. Bernard.
15. A. gypsophila, "leaves linear, foot, at the root bristy;
panicle subpubescent; petals lanceolate;" root perennial;
item erect, j inted, a span high; item leaves large,
and longer than the intermoids; panicle terminating, bristly,
dichotomous; petals three times as long as the calyx.
A native of the Levant. 15. A. fascellis, rock short-andow;
aljnae, Gmel. lib. iv. p. 157. t. 63. f. 2. "Leaves pubes-
cente; items panicled; leaflets of the calyx ovate, obtune;" root
perennial; items exceedingly numerous, forming a very
thick tuft half a foot high, and very full of flowers. A
native of France, Germany, Switzerland, and
Eng. fam. 512. "Leaves flabulate, rather obtune; item panicked;
items obvolute, longer than the calyx, three-nerved;
nerves dilaut, equal, Smith." Root perennial, long, much branched;
items numerous, five or six inches high, round, somewhat
pubescent and viscid, branched at the base, and panicled
above; leaves erecto-patent, pubescent, rather obtune, three-
nerved beneath, and above channelled, conate, and spreading
at the base; bracts ovate, three-nerved, short; peduncles,
etcé, pubescent; leaflets of the calyx acute, hairy,
three-nerved; margins membranous; petals longer than
the calyx, obtune, obtute; anthers flufhy; capsule longer
than the calyx; cylindrical, three-valved; leaves almost kidney-
shaped, rough, compressed. It grows on mountains in
England, Scotland, and Wales, flowering from May till
August. 18. A. hispida, hispid short-andow; "leaves flabulate,
hispid underneath;" this bears much affinity to spury;
items simple, with scattered hairs; leaves opposite, flat,
with a few hairs underneath; panicle flat dichotomous,
then branching, with alternate leaves. A native of
Icon. med. t. 2. 55. "Leaves flabulate, thorny; items eretz,
calyx flared; capules oblong;" root perennial; items nu-
merous, half a foot high, slightly pubescent; leaves spreading,
conate at the base, three-nerved, almost triangular,
mucronate; root leaves very short, blunt, without prickly
points; flowers in terminal panicles, on smooth, fliform,
one-flowered peduncles; bracts acute, three-nerved, with
a scarious waving edge; leaflets of the calyx lanceolate,
mucronate, three-nerved; petals obvolute, lanceolate,
obtuse, white, feebly twice as long as the calyx, flared;
Vol. II.
ARE

ARE

capsule three-valved, obtuse, shining; seeds small, comp. 3.

root, black; native places: in Spain. 28. A. tenuifolia, five-leaved fondwort. J. & G. p. 1.4. 29. A. tenuifolia, five-leaved fondwort. Hatt. With Eng. Bot. B. 19. Viol. Dan. 280. A. fenzelii. Ray Syn. 290. "Leaves subulate, acute; hemi pinnate; capsules erect, three-valved; petals lanceolate, shorter than the calyx; 1' its root is small, annual; leaves erect, commonly smooth, panicled, dichotomous; leaves three-nerved, connate, and dilated at the base; peduncles capillary, erect; flowers small, white; leaflets of the calyx lanceolate, acuminate, three-nerved, membranous at the edges; petals very small, lanceolate, obtuse, half the length of the calyx; flamma very short; capsule cylindrical, three-valved; seeds small, nearly of the shape of those of the A. rubra. It flowers in June, and grows in barren sandy fields, especially in Cambridgehire, Norfolk, Woreceireshire, and Oxfordshire. 21. A. liricifolia, hach-leaved fondwort; " leaves brily; item naked above; calyx rather fraggy; root perennial; items many, half a foot high, bifurged, and rough; peduncles roughish, one-flowered; calyx marked with lines, pubescent; petals ovate, large, marked with lines, twice the length of the calyx; fruit long, cylindrical. A native of France, Swizerland, &c. but not of Britain; the A. lirifel/folia of Withering being according to Dr. Smith, a variety of the A. verina. 23. A. britani, flanged fondwort. Allion pedem. n. 1712, t. 26. f. 4. Villars' Dauph. p. 47. "Leaves linear, erex, pressed to the stem; calyx long, flanged, "bristled." Allioni and Villars differ much in their representations of this species, and we have not the means of deciding which is right. It is a native of Swizerland. 23. A. faijiiculata, chatter-flowering fondwort. Jacq. Antl. 2. t. 185. Stellaria rubra, Scop. Carn. n. 538. t. 17. "Leaves subulate; item eres, stiff; flowers in clusters; petals very short; root annual; item four inches high, pubescent; leaves linear, acuminate, erex, subcyllindrical; flowers in bunches, dichotomous, on very short pedicles; leaflets of the calyx long, subulate, flanged, leaved; petals very small, ovate, white; calyx half the length of the calyx. A native of the south of France, &c. introduced here by Mr. Zier in 1757. 24. A. graniflora, great-flowered fondwort. Allion. pedem. n. 1711 t. 10. f. 1. "Leaves subulate, flat, stiff; radical leaves crowded; items one-flowered." A native of the south of France, Swizerland, &c. Gounn remarks, that Linnaeus and Allioni have made their descriptions from dwic plants. His description of the plant consequently differs much from theirs. See Gounn fihlii. p. 50. 25. A. aulnieri, aulnier's fondwort. Jacq. Antl. 2. t. 70. Allion pedem. n. 1708 t. 64. f. 2. "Stems under shrubby, profusely, thin, herbaceous, and erect; leaves subulate; flowers twin; petals margined;" perennial. Stems dichotomous or trichotomous; leaves linear, subvillose, pointed, connate at the base; items, peduncles, and calyx villose; capsule five-valved, shorter than the calyx; seeds brownish. A native of the mountains of Austria, Swizerland, and Piedmont. 26. A. ineflora, flux-flowered fondwort. Jacq. Antl. 5. t. 445. "Stems erect, branched below, under shrubby; leaves subulate; flowers twin;" perennial. Stems short, disorted; perennial; branches annual, simple, erect; petioles pubescent, terminal, generally two; leaflets of the calyx lanceolate, two-leafed; petals obovate, white. A native of the southern countries of Europe. 27. A. recurva Allion. ped. n. 1713 t. Sp. f. 3. Ger. prov. 425 n. 7. t. 15. f. 1. "Radical leaves heart-shaped, recurved, subulate; item simple, bearing about three flowers;" perennial. Stems three inches high, simple; leaves towards the root aggregate; (in tufts,) bristle-shaped; item leaves falcate, unequal, flatthith above, with the edges rolled back, two-leafed. A native of Provence and Alpine mountains. 28. A. ohlsonia. Allion. ped. 1714 t. 64. 1. "Leaves linear, flat, obtused, calyx vilose;" perennial. Stems procumbent, branched; leaves compound, foot, green, branches usually terminating by two flowers on long peduncles; leaves of the calyx ovate-lanceolate, green; petals entire, scarcely larger than the calyx; fruit conical, five-valved. A native of the high Alps of Swizerland. 29. A. lanceolata. Allion. ped. n. 1715 t. 26. f. 5. "Leaves lanceolate, three-nerved, acute; calyx lanceolate, three-nerved; root perennial, dark coloured, tough, creping; petals filiform, in a tuft, branched, creping, bifid with fine hairs; leaves lanceolate, acute, with three raised nerves; corolla spreading, large; flakes alternately shorter, longer than the petals; anthers small, purple; fruit conical, five-valved. This and many other species of the genus are involved in much confusion, from which they cannot easily be extricated. 30. A. ohlborrhoeidea, Smith inc. incd. t. 16. "Leaves linear, searose at the edge; flowers capitated; bracteae ventricose, longer than the peduncles." Alpine. &c. Tourn. cor. 17. "Root woody, perennial; items a foot high, fixed or even jointed; leaves connate; item clapping, acute, furmated, and rough at the edges; flowers monoeious, in a head or terminal spike; on short filament peduncles, ground with the bract; petals obovate with claws; three times as long as the calyx. Found in Armenia by Tournesort. 31. A. cumbaloides, Smith inc. incd. t. 17. Alpine orient. &c. Tourn. cor. 17. "Leaves linear, searose at the edge; petals dichotomous, pubescent; petals obovate;" root perennial; items a foot high, round, smooth; leaves connate; item clapping, acute; petals spreading, terminating, vilosed; flowers the size and appearance of those of common flux; bracteae acute, searose at the edge, only one fourth of the length of the peduncles; leaflets of the calyx ovate, acute, keeled, vilosed, viliffet, pedunclet; petals white, with subpellucid ileaves; five of the petals longer than the others; capsule one-celled, ventricose, shining, clothed with the calyx; seeds numerous. Found in Armenia by Tournesort.

Propagation and Culture. The greater part of these plants are natives of Europe, and most of them affect mountainous situations. They have neither size nor brilliancy to be generally cultivated in gardens; many of them, however, are neat elegant plants. The perennial sorts may be easily increased by slips, or parting the roots; but both these and the annual sorts may be propagated from seeds. They require no other care than what is necessary for all hardy annuals.

Arenaria, in Ancient Writers, is used for sand-pits, or ground out of which sand is dug. Viturvius.

Arenaria, in Cenecology, a species of Helix of the minute kind, found on the sandy shores of Armenia. This shell is whith, glossy, with extremely thin longitudinal slit; spire revered and hemispherical. Speng. Gmelin. &c.

Arenaria, a species of Sarpula that inhabits India and Africa. The shell is articulated, entire, distinct, and flatthith beneath. Gmelin. It is white or whith, and sometimes marked with pale brown undulated rays; the inside is smooth, outisde cancellated; the slit about one hundred in number, and frequently nodulous. The shell is twisted spirally. Obf. Gmelin doubts whether it may not be a Teredo instead of Sarpula.

Arenaria, in Entomology, a species of Vespa that lives in the sands in America. This insect is black; thorax spotted with yellow; abdomen fasciated on each segment with a fix-dentated yellow band; the first line, and interrupted. Fabricius. Gmelin. &c. Obf. Gmelin has another species of Vespa, under the same specific name, viz. sebes arenaria.
arenaria of Linnaeus: Fe. Snee, which he removes to this genus. It is black, with four yellow bands on the abdomen and two yellow dots on the frill segment. This is found in Denmark and Sweden, and belongs to the section of the Vespa, genus Cheliceris, in Gmelin's arrangement.

arenaria, a species of Formica found in the moveable funds in Barbary. This is a large kind; has a great ovate head, and subglobose pubescent abdomen. The specific character is this, black; thorax unimpressed behind and furnished with two spines; ends of the legs piecious. Fabricius and Gmelin.

arenaria, in Ornithology, the name given by BRILLON to the bird called by Linnaeus and Gmelin, Tringa Interprets; and Turnstone or Sea Dotterel, by English writers.

arenaria, a species of Tringa that inhabits the sandy shores of Europe and the Caffian sea. The neck and legs are black; body grey, beneath white; lores grey. This is calidris giceps minor of Brillon, Gmelin, &c.

arenarii, a species of Antigus, who combated with bals in the arena or amphitheatre. The arenarii were slaves of the lowest rank, so that, though manumitted, they were not capable of being Roman citizens. They were the same with what were otherwise called Deserarinii.

arenarium, in Ecclesiastical Writers, denotes a cemetery or burying-ground. The arenaria were properly a kind of pits, or holes under ground, wherein the ancient Christians not only buried their dead, but held their religious assemblies, in times of persecution. Baron. Annal. and Du-Cange.

arenarius, in Entomology, a species of Curculio resembling C. ligustici, but only about half the size of that insect. The head is hoary; thorax granulated, and with the legs, black; wings-cases conuate, grey, and frilled with punctures. Herblia apud Fuehil: inhabits Berlin.

arenarius, a species of Cimex, very common in the northern parts of Europe. It is black; wings-cases cinereous; wings white. Linnaeus, Fabricius. 0. F. This belongs to the section blugnus in Gmelin's arrangement.

arenarius, in Ornithology, a species of Tetrao, called Black-Latham. The land grinder. The collar, belly, and vent are black; two middle tail feathers rather tawny, the rest fuscated with brown and grey, and white at the tip. Pallis Nov. Comment. Gmelin, &c.

According to Dr. Latham, this bird is bigger than a pheasant; length, more than nineteen inches: bill, blue-grey; tip black; head pale ash-colour; crown and nape clouded yellowish-grey; chin deep yellow, terminated by a triangular black mark about the middle of the neck; the feathers of the throat and neck singularly truncated, and glossy like those of a dove; the upper parts of the neck and body tawny-white: each feather surrounded with a brown border, enclosing an oval yellowish spot; on the lower part of the neck a crescent of black; the breast is white; belly, vent, and thighs, black; wings hoary, with a deep yellow spot on the secondaries; quills brownish, obliquely white at the base; the tail has sixteen feathers; the two middle ones pointed and yellowish, crossed with brown lines; the others brown with grey lines; the tips white; legs slender, feathered to the toes; a black bill, short, naked, and callosely beneath; claws black; behind is a spur, which turns inwards, and is prominent and pointed. The female is rather bigger; of a paler yellowish colour throughout; dotted on the head, neck, and throat, with brown, and fuscated with the same on the back; the markings are less distinct than in the male, but it much resembles it.

This species is found only in the middle of the deserts extending towards the Caspian sea. It is very common about Amidian in summer, and passes the winter in Persia. Their food is the seeds of various kinds of ziziragha, and particularly of the species Aboperaidae, Cicer, and Phylodes. They are seen in pairs in June; and as they drink much water, are obliged to frequent those parts of the desert where it is found. It is said they go to the pools three times in the day, when they are so eager that they do not mind the sportismen, though at other times they are very shy.

They are no where more common than about the sandy mountains at Bardo eludes; fly like pigeons; and have a flickering through not unpleasant cry. The eggs are bigger than those of a pigeon, and white.

arenas, in Geography, are islands that lie 20 leagues north of Cape Condecoreo, or the North-west point of Campeche bay in the gulf of Mexico. Also four islands, situate on the coast of Terra Firna, on the north coast of the Spanish main or South America, before the bay of Bamba, well from St. Martha river and harbour; and sheltering the Lash from winds.

arenata, in Entomology, a species of Phaenalos, in the Geometra family. It is of the middle size, and inhabits Tranquebar. The wings, above, are without spots, beneath, speckled and streaked with brown. Fabricius.

arenation, a term that has been used by some physicians to denote a kind of dry bath, in which the patient only fits with his feet in dry sand.

arendse, in Ancient Geography, a town of Lycia, according to Ptolemy.

arendator, or arenadator, is a term used in Livonia, Ethnia, and some other parts of the Russian empire, for a farmer of the farms, or a person who contracts with the crown for the rents of the farms; and the crown arendator is one who rents an estate belonging to the crown. The term "Arendse" denotes both the estate that is let out, and the farm for which it is let. Arende-corn, is corn paid as rent by admidation.

arendonck, in Geography, a town of Brabant, belonging to the French department of Deux Nethes, and chieft place of a canton in the district of Turnhout, two leagues east of Turnhout. The place contains 2482, and the canton 6662 inhabitants: the territory includes 2374 kilometres and 3 communes.

arendsee, a town of Germany, in the circle of Upper Saxony and old mark of Brandenburg, ten miles west of Schweinfurt.

aren, or arense, in Ancient Geography, a town mentioned by Pausania (Mellen c. 2); and, according to him, founded by Araphaus, the grandson of Perleus, but he does not give its situation. Stephanus of Byzantium mentions two cities of this name, one in Mellenia, and the other in Thrasyllia.

arenium, a place of Italy, upon the Via Flaminia, near the Adriatic gulf.

arenosa, in Geology, a species of Murex, found on the sandy shores of India. The whorls of the spire are decollated with ribs, the first of which is large, and the three outermost ones smooth; beak, acute; aperture, oval; and the lip toothed externally. Gmelin, &c. This is a minute shell, short, acute, and callosely beneath; claws black; behind is a spur, which turns inwards, and is prominent and pointed. The female is rather bigger; of a paler yellowish colour throughout; dotted on the head, neck, and throat, with brown, and fuscated with the same on the back; the markings are less distinct than in the male, but it much resembles it.

arenosa, in Entomology, a species of Sphex, found in Germany. It is black and hairy; second and third segment rufous; wings as long as the body. Fabricius, Gmelin, &c.

arenosa, in Natural History, a species of Madrepora, that inhabits some parts of Africa. It is white; the flars contiguious, flat; rather large and ochraceous. Brander, &c.

arenous, in Entomology, a species of Scarabaeus, in the section Trox of Gmelin. The thorax is somewhat cana-
ARE

enamelled; wing-cases, frilated; body obscure. Fabricius, in his Saxon: and resembles Eurchus fabulosis, but is not more than half its size.

ARENSBERG, in Geography, a town of Germany, in the duchy of Weilphalia, fortified with a castle: the capital of a county incorporated with the electorate of Colouf. It is situated on the River, and divided into the old and new town; 48 miles north-east of Colouf, and 40 S. E. of Munder. N. lat. 57° 25'. E. long. 11° 45'.—Alfa, a town in the circle of Weilphalia, and county of Schauenburg, 5 miles north of Rinteln.

ARENSBURG, a sea-port town and district on the fourth side of the island of Oscei in the Baltic sea, separated from Ambrosk island by a bay, and belonging to the government of Riga or Livonia.

ARENSWALDE, a town of Germany, in the circle of Upper Saxony and new mark of Brandenburg, 44 miles north-east of Berlin, and 50 north-north-east of Kaltrain. N. lat. 51° 10'. E. long. 15° 28'.

ARENTIA, in Ancient Geography, a river of Italy, near the frontiers of Etruria and Liguria. It sprang to the north-east of Luna, and discharged itself into the sea near Carrara.

ARENUMUSA, in Geography, a town of Italy, in the kingdom of Naples, and province of Calabria, 16 miles W. of St. Sebastian.

AREOLA, or AREOLA mammilaris, in Anatomy, the coloured circle which surrounds the nipple. See Breast.

AREOLA, in Conchology, a species of Buccinum, that inhabits the Mediterranean, and India. This shell is sometimes smooth; sometimes frilated; and the firs are larger, or smaller in different specimens: its specific character is thus defined by Linnaeus and Gmelin: shell somewhat frilated, with four bands of square spots; aperture dentated; beak recurved. This is areola of Rumphius, and faburon of Adanson. The length is three inches.

AREOLA, a species of Trachus described by Cennin and Gmelin. It is convex, and frilated transversely; white, with square reddish spots; umbilicus crenulated; the whorls of the spine are separated by a white frack. Its native country is not ascertained.

AREOLA, in Natural History, a species of Madrepora without falk; undulations joined, and in some places doubled, with narrow truncated margin. This is madrepora simplex fuscobrunnata, alla erupito laciniosa lamellis crenulatis, of Pallus, and madrepora (areola) congolomera, anfractibus dilatatis, differentia exsul subequilibiibus, umbilicus duplicatis hinc dilatatus, lamellis denticulatis crenulatis of Solander and Ellis. Pictor calls it corallium album fungoides ovale; and Sloane, fungus lapideus undulatus. It is amarantinus marinus of Valent; morillo of Molin; cariophilioides of Argenville; mycedium cavatum crenulatum of Hill; and crenicles of Knorr. It inhabits India and South America.

AREOLATA, in Conchology, a species of Patella, resembling P. magellanius, but is more depressed, and broader at the base; and by the direction of the flrize which crosses each other, is divided into triangular spaces; the longitudinal finze are about twenty-one in number; the habitat is unknown. Gmelin defines its specific character in these words: shell pyramidal and reddish grey, with very thin circular frize, crofed by others which are longitudinal; vertex violet.

AREOLATA, in Ichthyology, one of the varieties of Perc or sanders, an Arabian fish described by Forke. Ex Arab.-Gmelin thus mentions it, areolata perch, body whitish-cicereus, with yellowish-brown spots. See PERC or SANDER.
The Areopagites were judges for life.—They never sat in judgment but in the open air, and that in the night time; to the intent that their minds might be more present and attentive; and that no object, either of pity or aversion, might make any impression upon them. However, some maintain, that the building in which the areopagites assembled, was not wholly uncovered; and they observe, that among the ruins, large stones have been found, whose joints are in the same angle with the pediment that must have been used for a covering. Mr. Spen, who examined the ant quities of that illustrious city, found some remains of the areopagus still existing in the middle of the temple of Theseus, which was hextroct in the middle of the city, but is now covered by the walls. The foundation of the areopagus is a fortress, with an esplanade of 140 paces round it, which properly made the hall of the areopagus. There is a tribunal cut in the middle of a rock, with seats on each side of it, where the areopagites sat, exposed to the open air. At first they only took cognizance of criminal causes; but in course of time their jurisdiction became of greater extent. This court is recorded as the first that sat upon life and death; and the trial of wilful murder seems to have been the original design of its institution. In later ages, all incendiaries, affiliai, conspirators, defectors of their country, traitors, and mortal causes in general, fell under its cognizance. The opinion which the site entertained of the wisdom, gravity, and faculty of its members, gained for them an unlimited power; insomuch that, according to Solon's regulation of this assembly, the inspection and custody of the laws, the management of the public funds, the guardianship of young men, and the education of youth according to their rank, were committed to them. Their power extended to persons of all ages, and sexes, to punish the idle and profligate, and to reward the industrious and virtuous, according to their own pleasure. For this purpose they were empowered, by entering and examining private houses, to condemn every infames person as dangerous, and every expense not proportioned to the means of the citizen as criminal. Besides they took cognizance of religious matters, blasphemy, contempt of holy mysteries, the erection and consecration of temples and altars, and the introduction of new ceremonies: nevertheless, they interfered in public affairs only in cases of emergency or danger. As this assembly exhibited the greatest firmness in punishing crimes, and the nicest circumstancy in reforming manners; as it never employed chastisement till advice and menace were flighted; it acquired the esteem and confidence of the people, even whilst it exercised the most absolute power. Its meetings were held three times in every month, viz. on the 27th, 28th, and 29th days, but on any urgent business, the senators assembled in the royal portico.

The Court was divided into several committees, each of which took cognizance of separate cases, if the multiplicity of business would not allow time for them to be brought before the whole senate: and this was done by lots, that the cases might not be prejudged. In crimes that concerned religion or the state, the power of this court was limited to preparing the matter for a trial; and it then made its report to the people, without coming to any conclusion. The accused then had it in his power to offer new pleas in his defence; and the people named orators to conduct the prosecution before one of the superior courts.

Trials in the Areopagus were preceded by tremendous ceremonies. The two parties, placed amidst the bleeding members of the victims, took an oath, which they confirmed by dreadful imprecations against themselves and families. They called to witness the Eumenides, who, from a neighbouring temple dedicated to their worship, seemed to listen to the invocation, and prepare to punish the perjurer. They then proceeded to the trial; requiring all pleadings to be conducted in the simplest terms, without circumlocution, apology, or appeal to the passions. After the question had been sufficiently discussed, the judges silently deposited their suffrages in two urns, one of brahs called the urn of life, and the other of wood called the urn of mercy. This mode of giving votes was afterwards abandoned, and they were delivered in public, by calling their calculi or flints upon two tables, one for those that acquitted, and the other for those condemned: when the numbers were equal, an inferior officer added, in favour of the accused, the suffrage of Minerva, so called, because, according to an ancient tradition, this goddess being present in the court of areopagus at the trial of Orestes, gave her calling vote to turn the scale of justice. In some causes the sentence of this court was not final; but an appeal might be made to the courts to which they respectively belonged.

This court is said by some, as by Plutarch and Cicero, to have been instituted by Solon; but others carry it much higher, and ascribe it to have been established by Cecrops, about the year before Christ 1556, or by Cralwus, one of his successors; maintaining also, that Solon only made some new regulations in it, increased its power and privileges, and made it inferior to the ephete, another celebrated court instituted by Draco. In effect, Demosthenes himself, in his oration against Ctesiphon, owns himself at a loss on the point: "The infitutors of this tribunal (says he), whatever they were, whether gods or heroes," &c.

This court preferred its authority uncorrupted and entire till the time of Pericles, who, not having borne the office of archon, could not be admitted into it; and therefore employed all his art and interest to undermine it. This at length he so effectually did, that his contempt of it served to leaven its dignity; and from that time the fame excusses and vices, which were practised in the city gained ground among the areopagites themselves, until by degrees they lost all their former power and eileem.

When the apostle Paul was summoned to appear before the court of areopagus, under a charge of being "a fetter-bore of strange gods," (Ice As6, xviii.) and consequently of having violated the law that fulfilled at Athens, which made it capital to introduce or teach any new gods, his conduct exhibited an admirable union of wisdom and fortitude. In such a case an impositor would have retracted his doctrine to save his life; and an enthusiast would have lost his life, without trying to save it by innocent means. St. Paul did neither the one nor the other: he availed himself of an altar which he had found in the city, inscribed, "To the unknown God," and pleaded that he did not propose to them the worship of any new god, but only explained to them one whom their government had already received; whom therefore ye ignorantly worship, him I declare unto you:" by this he avoided the law, and escaped being condemned by the Areopagus, without departing in the least from the truth of the gospel, or violating the honour of God. "An admirable proof, in my opinion," says Lord Lyttleton, (on the Conversion of St. Paul, in Mice Works, vol. ii. p. 68.) "of the good sense which he acted, and one that shews there was no mixture of fanaticism in his religion." See Altar.

AREOPOLIS, in Ancient Geography, a city of Arabia Petraea, sittuate on the river Arnon, and called also Ar and Rabbath-Moab.

AREOSTYLE. See ARKOSTYLE.

AREOTICS. See ARKOTICS.

AREQUIPA, or ARIQUIA, in Geography, is one of the largest.
ARE

large colonies in Peru, South America; and was founded by Don Francisco Pizarro, in 1539. It stands in the valley of Quito, about twenty leagues from the sea, in a fertile country. Near it is a dreadful volcano. The air is very temperate, and the soil in the country; but it has been four times laid in ruins by earthquakes. It is very populous, and well built, contains a convent and two monasteries, and had a college of Jesuits. It has a bishoprick in Lima, and lies 290 miles south by east from that city. S. lat. 16° 40' W. long. 75° 32'.

ARES, a town in Germany in the county of Tyrol, eleven miles south-west of Tyrol.

ARES, a term framed by Paracelsus, to express a hidden disposer, in the three principles of things, from which each receiving its proper form and fulness, and affirms its own specific nature, not that of any other being. Paracelsus distinguished the are into abstrich, which is natural; and chemical, which is artificial. See Areclus.

ARESCHIL, or Geography, a town of France, in the department of Jura, and chief place of a canton in the district of Arbois, six miles east of Arbois.

ARESKUTAN, is the name of a solitary mountain of Jamtland, in Norway, about four or five Swedish miles from the highest Alps which separate Norway from Sweden; and it is said to be 6,162 English feet above the nearest rivers.

ARESTI, Floriano, in Biography. See Floriano.

ARESTINGA, an island of the Indian ocean, towards Kerman and the town of Dulinda, supposed to be the Liba of Ptolemy.

ARETALOGI, in Antiquity, a sort of philosophers, chiefly of the cynic or stee tribe, who having no school or disciples of their own, haunted the tables of great men, and entertained them in their banquet with disputations on virtue, vice, and other popular topics. Pitiennis Lex. These are sometimes also denominated circuliore philolopiers. Calvin. Lex. Jor.

ARETIUS of Capadocia, in Biography, an early Greek writer, practised medicine at Rome, but at what period is not exactly known. That he lived after the time of Andromachus, physician to the emperor Nero, is evident from his mentioning the Theriaca, a medicine invented by that writer, and that he did not live long after that time. Haller conjectures from the purity of his style. Different writers, who lived a little before the time of Galen, quotes Areatus. Hence we may infer that he flourished some time between the reigns of Vespasian and Adrian. Eight of his books, on the canse, figus, and method of treating acute and chronic diseases, have been preserved, but all of them, as it appears, mutilated and imperfect; Areius having quoted several passages from his works, which are not found in the copies that have come to our hands. The works, however, are in high estimation, as well for the accuracy with which the diseases are described, as for the judicious practice recommended in curing them. Areatus was a bold and decisive practitioner, and made much use of hellebore and other drastic medicines. He is one of the earliest writers who recommends cathartics for raising the bowels in all diseases. The translation of the works into Latin by Junius Paulus Crafinus, was published in 1630 at Venice in 1552, and continued in use, being frequently republished, until 1723, when Dr. Wigan of Oxford made a new version. This was published in folio, with the Greek text in the opposite page, and enriched with a preface, notes, and critical diffutations. A Greek edition by J. B. Goupylus, was printed at Paris in 1754, 8vo.; and reprinted by H. Stephens. A Greek and Latin edition was published by Henchenius, in 1603, fol. It has been since edited by Boerhaave in 1731, with additional notes and observations; and again by Haller in 1771, with further emendations. An English translation of Areatus from the original Greek, was published by Dr. Medall in 1785, 8vo. Catellina Varia libri. Medics. Haller Biblioth. med. pract.

ARETHE, the daughter of Arilitippo of Cyrus, was a female of talents and learning, entertaining her to a place in the catalogue of philosophers. She flourished about 370 years before Christ, professed and taught the doctrine of her father, and professed over the Cyriac school after his death. Lact. b. ii. § 86. Clem. Aet. Strom. i. iv. p. 523. Brucker's Histor. Phil. by Emde, vol. i. p. 118.

ARETTE, in Botany, a species of Papilion (Nymph. Gme.) The wings are entire, brown, with a red line band; on the posterior pair both above and beneath a streak of white dots. Fabricius. Inhabit Andrea.

ARETHAS, in Biography, bishop of Caesarea, was the author of commentary on many collected, according to Mill, from that of his predecessor Andrew, and from the works of Irenaeus, Hipppolytus, Gregory Nasenzer, Cyril of Alexandria, and others. Cave, Mill, Lardner, and others, refer this writer to the middle of the sixth century; but Calimire, Oudin, and Fabricius, are of opinion that he lived in the tenth century. Dr. Lardner observes that he cites most or all the books of the New Testament, and hence infers, that he received all the same books which we acknowledge; he also quotes Solomon's song. Cave. H. L. t. i. p. 520. Lardner's works vol. v. p. 274.

ARETTON, in Ancient Geography, a navigable river of Epirus, which had its source in Athamania, and discharged itself into the Ambrian gulph near Ambria. Ptolemy calls this river Arachthius. Liv. I. xxviii.

ARETHUSA, in Botany, a genus of plants belonging to the natural order Orchid. Lin. g. 1014. Schreb. 1773. Just, 67. Orchid. Nutch. 19. Clei. gynanthera diandria. Gen. Char. Col. spathe leafy, perianth none. Cor. ringent, petal five, oblong, subequal, two places more outward than the others; all converging to the helmet, resembling a bell. One leafed, tubular at the base, within the bottom of the corolla, two-parted; lower lip reflex, broad, wrinkled, the length of the petals, hanging down forwards; upper lip linear, very tender, falcated to the style, lobed at the top. Stem. filaments two, very short, sitting on the top of the pillar; anthers ovate, compressed, covered with the folding of the inner lip of the nectary. Pijg. petal oblong, inferior; style oblong, incurved, clothed with the inner lip of the nectary; stigma funnel-shaped. Per. capsule oblong-ovate, one-crested, three-valved, gaping at the angles. Seeds, numerous, chalzy.


Species: 1. A. bulboia, bulbous rooted arachthia, "root gobo; sacris-thrathit; spathae two leaved." It grows in watery places, as bogs, &c. in Virginia, Carolina, and Canada. Introduced here 1784, by Mr. William Young.

2. A. aphylloides, subula-tongue leaved arachthia. Helleborine var. &c. Phil. Alm. t. 93. f. 2. Cypripedium. Gron. var. t. 313. Hort. Clar. f. 340. root fibrous, leaf of the shield lanceolate, 6 oblong, native of the same places as the preceding species. 3. A. dissectia, lily-leaved helleborine or arachthia. Serapias. Gron. var. i. p. 184. helleborine lili folio, &c. Catelb. var. i. t. 58. "root subpalmate; leaf of the shield and leaflet of the spathae lanceolate; outer petals rising." It grows in the same countries and situations as the first and second species. 4. A. capetia, cape arachthia, fopp. 4251; "bulb round; item two-leaved; simple; one-flowered; leaves two, alternate, falcating, awl-shaped." Found at the cape of Good Hope by Thunberg. 5. A. villofis, villole arachthia, fopp. 495; "bulb round; leaves ovate, eliate, pubescent." This was also
ARE

also discovered at the Cape by Thunberg. 6. A. ciliaris, clusted arethusa; orich burmanniana, fty. ed. 13; "root
fluffy; leaf kidney-shaped, orbiculate; lip ciliate; bulb vil-
dose, double; scape fix or seven inches high; leaf one, sub-
radical, heart-shaped, nerved, Iem clasping; flower one, nodding; germ hairy, the length of the petals; upper
petals rather erect, lanceolate; two lower longer, lanceolate, uniform; horn of the nectary moon-shaped, shorter
than the germ; lip large, subtripartite, clusled, middle division
bifid; namentes feteaceous, longer than the lip itself; column
of the flarnes forming half the length of the petals. Found
at the Cape, by Sparrman; introduced in 1787, by Mr. Maff-
on. 7. A. lophantha, two-feathered arethusa, Smith; in-
sect. t. 23; "cape feathered; Iap the cowled; the two lower
petals elongated, bearded on the upper side;" flem simple,
erec, a foot high; radical leaves linear-lanceolate, equita-
t at the base; Iem-leaves fix or seven, membranaceous, acute,
shathing, alternate; flower terminal, solitary, ered, purple:
germ inferior, obconical, smooth; three outer petals of the
corolla longer, irregular; the upper somewhat vaulted,
acute, naked; the two lower ones pubescent, broad at the
base, bearded on the upper side near the top with club-shaped
hairs, or filiplate glands; the inner petals shorter, opposite,
spotted, somewhat rhomb-shaped, acute, nerted with pur-
iple veins; roots fasciated or in bundles.

Propagation and Culture. The three first are hardy and
will endure the rigour of our climate. The three next must
be kept in the conservatory or case-flour. The last must
be preferred in the back-flour. But none of these plants
have yet been introduced into England, except the first and
third. Containing their places of growth, in bogs and wet-
try places, it will be no easy matter to preserve them long
with us. See Martyn's Miller's Dei.

ARETHUSA, in Entomology, a species of Papilio (Nym-
phaea, Gm.) The wings are dentate, above brown, with
a band spotted red; the anterior with a single ocellus on each
side. Habituates Germany, and is very like the Semcla.

ARETHUSA, in Ancient Geography, a town of Aia, in
Syria, ituate on the river Orontes, south-east of Epiphania,
between this town and Emesa, and distant from Antioch,
according to Antinonius's itinerary, 16,000 paces. It was
a bishop's see — AIfO a town of Macconia, in the district
called Amphaxites. — AItO, a town of Judaea, mentioned
by Josephus, and restored by Pompey to its original inhabi-
tants.

ARETHUSA, a lake of Aia, in the greater Armenia,
south of the mountain Niphates, and not far from the source
of the Tigris, which traverses it. According to Pliny (H. N.
1. vi. c. 27.) it existed nitrous vapours. — AItO a fountain
of Greece, in Boeotia, not far from the city of Thebes. AItO.
AifO a fountain in the island of Euboea. — AIfO, a foun-
tain of Maga, Greece, in Brutium, now the gulf of Squil-
laci, according to Calsidurus. — AItO, a fountain of the
isle of Ithaca, called Cyrys, according to Stephanus Byz.
AIfO, a famous spring in the island of Sicily, near Syra-
ude. For an account of the fable relating to this fountain and
Alpheus, see ALPHEUS. Virgil refers to it in his 10th Eclo-

"Extremum bunc, Arethusa, mihi concede laboren
Sic tibi, cum fluctus tabularibire Scanos,
Doris amara fuisse non interminieat udam.

"Thy sacred succour, Arethusa, bring,
To crown my labour: 'tis the last I sing.
So may thy silver streams beneath the tide,
Unmixed with briny seas, feebly glide.

The water of this fountain, formerly celebrated for its
softness and sweetness, is now brackish, and fit for 90 pur-
poe but washing linen. It is defended from the sea by a
wall, and almost hidden by houset on every side. Rubbish
has choked up its salluary spring; the waves have found
a passage through the rocks, split by repeated earthquakes;
and not a fish is to be seen in it. After an earthquake it
has been left dry; and at other times its waters have been
 tainted by subterraneous effusions. Its fountain-head probably
lies among the neighbouring hills.

ARETHUSA, in Mythology, was one of the Nymphs.
ARETHUSUS, in Entomology, a species of Papilio.

(Dan. Felt, Gen.) The wings are very entire, black,
with blue spots; posterior pair dotted with languiduous
red beneath. Fabricius. Obi. This is papilio arethusa of
Gramer; and papilio arethusa variety supposed by
Genlino to be a variety (6) of this species likewise.

ARETHYREA, ARETHUSA, in Ancient Geography, a
name given by Homer to a small country of Peloponnese,
now Achaia.

ARETIA, in Botany, so called by Haller, in honour of
B. Arethusa, a clergyman of Bern in the fifteenth cen-
tury, the teacher of botany to the famous Gfenner; Haller,
Juf! 96. Chiis. pentandria monogynia. Nat. Order of precious:
yphuchis Juf!. 90. Gen. Char. perianth, one leafed, bell-
shaped, filiguiquesquid, blutfih, and permanent. Cor.
monopetalous, salver-shaped, tube ovate, length of the calyx,
contrasted at the neck; limb five-parted; delisions obovate:
Stem. flaments five, conic, in the middle of the tube very
short; anthers ered, thepfi, within the throat of the cor-
roll. Pfl. gum roundish; fyle filiform, length of the tube;
stigma flat-headed. Per. capitule, one-celled, five-
valved. Sedi five, Jacq.; three and five, Reich.

Eff. Char. Cor. salver-shaped, five-cleft, tube ovate; stigma
flat-headed; cap. one-celled, globular, with about five
seeds.

Species, 1. A. helvetica, imbricatc arelia; diaepia helve-
diapenfia, Villars' Dauph. ii. 472. " leaves imbricate, flower
subfelle; root perennial, with innumerable flments forming
thick twills, covering the rocks where it grows, each branch
terminated by one flower; fruit roundish with angles; seeds
longer, darker, and in number fewer than in primula andandro-
face, and germ containing rudiments of five seeds two or three
of which are abortive. A native of the western Alpes of
Switzerland, and of Dauphine. 2. A. alpina, linear-leaved A.
androface caulefens, &c. Amen. Acad. andr. arelia,
Villars' Dauph. " leaves linear, spreading, flowers pedun-
culated; tufts of leaves, linear, harder, and wider than the
other; fruit often abortive, with sometimes ten or
twelve seeds in dry airy situations. Haller enumerates three
varieties; (a) harder and the leaves almost smooth; fruit
round, compressed, five-valved; (6) more tender, leaves more
villose, not spreading so much, and shorter; flower rote-
coloured with the leaves and calyx covered with a close
white scale; (c) flowers purple; these are found on different
parts of the Swiss Alps; the second on Mount St. Bernard,
Simpton, &c.; the third in the Gripons, and valley of St.
Nicholas. Villars gives three varieties, which he supefcts
to be distinct species: (a) hoary, with the hairs of the
leaves branching, flowers white, often terminating: (b) hir-
toate, hairs of the leaves branching, flowers purplih, ax-
illary, (c) hirtoate, hairs of the leaves simple, flowers white,
with a purple eye; the second forms fine tufts of red
flowers on Mount St. Bernard, 150 toises above the level
of the sea, and carries vegetation to the height of nearly 1700
toises, not much less than two miles. This species occurs
also in Austria; this and the foregoing were introduced in
ARE

1775, by Drs. Pitcairn and Fothergill. 3. A. citithana, 
graff-leaved aretca; viteiliana perennis, &c. Sel. 
epit. t. 10. 
f. 1. sulpum alpinum, &c. colom. cephr. 2. 7. f. 1. 
Kens. 
5. 6. " leaves linear, recurved; flowers submiff;" a small plant, 
always lying on the ground; root perennial, with distinct 
tubs, forming rodes like the fereum; corolla deep yellow, 
with a long tube, with five large glands in the opening; 
fruit round and small, with five kidney-shaped seeds. 
Native of the Pyrenees, the High Alps, between the Valais 
and Italy; and in Dauphiné; introduced here in 1787, by 
M. Cebi.

These are all small perennial alpine creeping plants; 
the little stems are covered with leaves; the flowers are axil-
lary, and almost solitary.

Propagation and Culture. These plants are preferred in 
gardens with difficulty. They require a shady situation: 
and the seeds, if preferred, should be sown as soon as possible. 
They may be also propagated from offsets or slips, and by 
cutting the roots. Martyn's Mill's Diet.

ARETINO, in Ancient-Greek a people of Italy, in 
Etruria. Pliny distinguishes them into three classes, viz., 
Aretoni veteres, Tulentia, and Julicenii; and their territory 
was divided into three different districts.

ARETINO, Francis, in Biography, see Francis Ac-
cotti.

ARETINO, Guido. See Guido.

ARETINO, John, surnamed Tortellini, a grammatarian, 
flourished about the middle of the fifteenth century, and 
was librarian and chamberlain to pope Nicholas V. He 
was the author of grammatical work "De potestate literari-
um," and of a life of Athenaeus; and though not very 
much distinguished by literary attainments, he never dis-
honoured learning by fierce and injurious disputes. 
The tutelage of Laurentius Valla, "De latinia elegantia," was 

ARETINO, Leonard, a learned historian, derived his name 
from Arezzo, where he was born of the family of Bruni, 
in the year 1370. Having acquired under the instruction 
of Emanuel Chrysoloras an accurate acquaintance with the 
Greek language in Italy, he was distinguished as one of the first 
refrainers of Greek literature in Italy. By his reputation 
for talents and learning, aided by the good offices of his 
friend Poggio, he obtained the office of secretary of the 
breviaries, and four succeeding pontificates. When pope John 
XXIII. whom he accompanied to the Council of Constance 
in 1415, was deposed, he returned to Florence, and devoted 
his leisure to the gratification of his taste in the pursuits 
of literature, and in the composition of various works. 
He was afterwards employed in several embassies on the behalf 
of the republic of Florence, of which he was chancellor; 
and by his economy, or rather parsimony, he amassed a 
large fortune. He died at Florence in 1444; his funeral 
was magnificently celebrated at the public expense, and 
whilst his funeral oration was pronounced, the orator, by 
order of the magistrates, crowned the coffin with laurel. 
Aretino was regarded as one of the first men of his age for 
genius and learning, and as one of those who formed the 
epocha of the revival of literature. The Latin inscription 
on his tomb in the church of St. Croce, is this purpose: 
"Since Leonardo palled out of life, history pours, elo-
quence is mute; and it is said, that neither the Grecian nor 
Roman muses could refrain from tears." His works, both 
as original compositions and translations, are very numerous; 
to the former class may be referred "The history of ancient 
Greece," 8vo, Venice, 1543; "An attempt to supply in 
part the defect of the second Decade of Livy," in two books, 
4to, Augsburg, 1537; "An history of the transations 
of his own times in Italy, from 1438 to 1445," 4to, Lyons, 1539; 
"History of Florence," fol. 1744; "The Greek and 
Italian letters," republished by Naude in 1642; and "Epistles, 
translated at Florence, with notes, and the life of the 
author, by Nechr, 8vo. 1754, which work is much valued for 
the historical information which it contains. His Latin 
translations are several of Plutarch's lives, and Ariosto's 
ethics and politics; the latter of these translations was dedicated 
to Duke Humphrey of Gloucester, and the copy presented 
by him to the translator, most elegantly illuminated, is now in 
the Bodleian library at Oxford. His "History of the Goths, 
" published, to his honour as an original work, but dif-
covered to be a translation of the Greek of Procopius; and 
"Three books of the Panec war," published in 8vo. in 
1537, another plagiarism, as the work is for the greatest 
part a translation from Polybius, though the author denies 
is in his preface. Eranus, speaking of Aretino's Latin 
yle, says, "that his works are written neatly and with 
care, and sometimes are even Ciceroan; but his language 
wanting facility, his Latinity is not always a part," Volf. 
ILLUSTRATIONS.
**ARG**

good morals. Arctino died at Venice in 1556, at the age of 66 years. An Italian woman wrote an epitaph for him, the turn of which was, "that he calumniated every one but God, whom he feared only because he did not know him."

**ARETOLOGY, ARETOLOGIA,** that part of moral philosophy which treats of virtue, its nature, and the means of arriving at it.

**AREVA,** in Ancient Geography, now the Adajas, a river of Spain in the country of the Arevas. See Adaja.

**AREVACI,** a people of Spain, who inhabited the interior part of the country to the south-east of the Vicianas, from the source of the river Nereus to the mountains in which was the city of the Sclerei. See to Adaja.

**AREVALILLO,** in Geography, a river of Spain, which runs into the Adajas, a little above Arevalos.

**AREVALOS,** a town of Spain, in Old Castile, on the confines of Leon, between the rivers Adaja and Arevalillo, six leagues S.E. of Medina del Campo.

**AREUS,** in Ancient Geography, a small river on the coast of Africa, in Bithynia.

**AREZZO,** an ancient Areettium, or Aretium, a town of Italy, in the duchy of Tuscany, the seat of a bishop, suffragan of the Archbishop of Florence, but exempt from his jurisdiction. It lies on a declivity in the midst of a fertile plain, producing grain, wine, and oil. In the time of the Romans, it was one of the twelve principal cities of Etruria; but it was over-run and defoliated by Sylla, because in the Social war it was leagued with the enemies of Rome; and he conducted thither the inhabitants who were denominated Aretini Novi. For some time it formed an arch of the Roman wall, on the side of the Duomo, and was incorporated with the territory of the Florentines; and at length was transferred to the dominion of the Medici, with the rest of Tuscany. This city was the native place of Maccenas, Guido Arezzo, Aretin, and Petrarch. It is situated thirty-four miles south-east of Florence, and twenty-five E. N. E. of Sienna. N. lat. 43° 28'. W. long. 11° 50'.

**ARFARA,** one of the smaller of the Shetland islands.

**ARFAS,** in Ancient Geography, a town of Judea, in the half-tribe of Manaffich, on the other side of the Jordan. According to Josephus, it was the boundary of Trachonitis to the east.

**ARFEUILLE,** in Geography, a town of France, in the department of the Allier, and chief place of a canton, in the district of Couffet, four leagues call of Couffet, and four fouth of Donjon.

**ARG,** a river of Germany, in Suabia, falls to Wanger, and discharges itself into the lake, of Constance. It is the Argus of the Latins.

**ARGA,** a river of Spain, rises in the Pyrenees, in the frontiers of lower Navarre, and runs to Pampeluna, and joins the Arragon over against Villa-Blance.

**ARGA,** or Astarta, a small town of Arabia Petraea, in the government of Medina, situated on the Arabian gulf, and west of Medina, to which it is considered a sea-port. Some call it Erpa, and others suppose it to be the same with Djar.

**ARGA,** a branch or rib of the Altay mountains which pass westward to the river Yuta.

**ARGADES,** in Ancient Geography, a river of Afa, in Sitacene, mentioned by Albian, Hill. Anim. i. xvi.—Also, a tributary town of Attica, noticed by Herodotus, and by Plutarch called Iragades.

**ARGADINA,** a small town of Africa in Margaria, according to Ptolemy.

**ARGAIS,** an island of the Mediterranean sea, on the coast of Africa Minor, in Lycia, according to Steph. Byz.

**ARGAL,** or Argol, the hard lees sticking to the sides of wine-vessels; more frequently called Tartar.

**ARGALIS,** a mountain of Africa, being the highest in the Atlas, with its summit always covered with snow, according to Strabo.

**ARGAEUS,** a mountain of Asia, being the highest in the Alps, with its summit always covered with snow, according to Strabo.
of the fallow-deer; of a ferruginous full-colour, intermixed with grey above, and white tinged with grey beneath; the face whitish, and behind each shoulder not unfrequently a dusky spot; the body is large, neck long, legs slender but strong, and the hinder ones longer; the tail is remarkably short, never exceeding three inches in length, and is brown at the tip; the horns in full-grown animals are extremely large, placed at the top of the head, and stand close at their base, rising frill upwards, and then bending down and twisting outwards as in the common ram. The body is covered with hair instead of wool, in which particular confis its chief difference from the general aspect of a sheep; but it is woolly at the rudiments of the hair: the face, and about the tip of the nose especially, becomes whiter in winter; the back more ferruginous, and the hair rather more rough, wavy, and curled. The female is smaller than the male; and her horns are smaller and less curved. The horns of the old males grow to a very size, and have been found of the length of two Ruffin yards, measured along the spurs, and weighing fifteen pounds each.

Like that anomalous creation the goat, the argali entirely prefers the alpine regions in summer, and are found in that season feeding on the scanty herbage that covers the highest mountains; in spring and autumn they are observed in the little valleys between the loftier precipices, and defend to the bottoms as winter approaches. They go in small flocks or parties, produce their young in the middle of March, and have one, or sometimes two at a birth. When first born, they are covered with a soft, grey, curling fleece, which changes to hair towards the end of summer.

"The argali," says Dr. Shaw, "is a very timid animal; and when closely pursued does not run in a directly progressive course, but obliquely from side to side, in the manner of other sheep, ascending the rocky mountains with great agility, and, like the wild goat, going over the narrowest and most dangerous places with perfect safety. The males are laid to fight frequently among themselves, and will sometimes precipitate each other down the rocks in their contest. Their chase is dangerous and difficult, but it is an important object with some of the Aborigines, since the animal furnishes a great number of necessary articles; the skin being used for clothing, and the flesh for food. Dr. Pallas informs us, that the flesh of the lamb is excellent; that of the old animals good, but more particularly when roasted."

In Corsica, the argali is known by the name myro; where it is found there is to be rarely taken alive, but is shot by the hunters, who lie in wait for it among the mountains. When the young are taken, however, which is sometimes the case when the parent is shot, they are observed to be very readily tamed. The Corsican argali, or mouflon of Buffon, is of a darker colour than the Asiatic kind."

The bearded sheep and Siberian goat of Pennant's quadrupeds, Dr. Shaw conjectures to be a variety of the argali; a specimen of it was brought into England from Barbary in 1801, and is described by Cain or Dr. Kay, who named it tragelaphus, on a supposition of its being the same with the tragelaphus of Pliny; and the following account of it is given by Mr. Pennant.

"Sheep with the hair on the lower part of the cheeks, and upper jaws extremely long, forming a divided or double beard, with hairs on the flanks and body short: on the top of the neck longer, and a little erect; the whole under part of the neck and shoulders covered with coarse hairs, not less than fourteen inches long; beneath the hairs, on every part, was a short Gimorne wool, the rudiments of a fleshy clothing; the colour of the beard, neck, back, and sides a pale ferruginous; tail very short; horns close at their base, recurved, twenty-five inches long; eleven in circumference in the thickest place, diverging and bending outwards, their points being nineteen inches distant from each other."

ARGAN, in Botany. See SEIDESMONON.

ARGANA, in Geography, a town of Asia, in the government of Diarbekir, under the dominion of the Turks. It is situated on an eminence, in a principality of the same name, abounds with vineyards, and furnishes exports of good wine. N. lat. 39° 55'. E. long. 39° 15' 43".

ARGANACT, in Geography, a town of France, in the department of the Mofelle, and chief place of a canton in the district of Mez, 3 leagues S. of Thionville, and 14 N. of Metz.

ARGAND'S LAMP. See LAMP.

ARGANTA, in Geography, a town of Spain, in New Catalonia, and diocese of Toledo.

ARGANTE, in Entomology, a species of Papilio. (Dana. Gen. Gmel.) The wings are rounded, and lined beneath, speckled with ferruginous. Fabricius. This insect inhabits Brazil. Off. This must not be confounded with Papilio Argana, of Cranmer, that being Papilio Gombius of Fabricius and Gmelin.

ARGANTAMAGUS, in Ancient Geography, now Argentan, a place of Gaul, between Fries and Ermonnon.

ARGANTONIUS Moses, a mountain of Asia, in Myfia, near the town of Prusa. Strabo says, that in his time the inhabitants of Prusa held a festival, during which they ran upon this mountain, and called Hylas; probably in reference to Hylas, the friend of Hercules, who was carried off from this mountain by the nymphs.

ARGARADUCA, a town of Asia, in Media, Persia.

ARGARI, a place of India, in the peninsula on this side the Ganges, according to Todnay; whence probably was derived the name of the Argaric gulf, on which it situated. This gulf was opposite to the island of Taprobana, and between the promontories of Colis, and Cullacum.

ARGAROSSA, in Geography, a river of Savoy, which runs into the Pyrenees, 3 miles north-west of Montber.

ARGASCH, a town of Raffia, in the government of Simbirsk, 64 miles W. S. W. of Simbirsk. N. lat. 55° 4'. E. long. 57° 45'.

ARGENGE, in Entomology, a species of Papilio, (Nymph. Gen. Gmel.) The wings are indented, white, streaked with black; a singular ocellar spot on the anterior wings, and five on the posterior ones. This inhabits the deferts of Raffia, Eper. Gmelin, &c.

ARGE, in Geography, a town of Asia, in the Arabian Ira, seated on the Tigris, 175 miles north-west of Baffora.

ARGE, a river of Portuguese Prussia, which runs into the Nemen, 4 miles north-west of Wipe.

ARGE, in Mythology, fitter of Hebe and Vulcan, was born of Jupiter and Jutus, when this god disguised himself under the form of a cuckoo, and deceived his wife.

ARGE, or ARGELA, in Antiquity, human figures made of rushes, thrown annually by the Velhia, from the pons Sabinus, into the river Tiber, on the day of the Ides of May.

This ceremony we learn from Fechinus and Varro; the latter of whom, however, says, they were called by the priests, folae, by iaculatim we impose he meant priestesse. He adds, that the number of figures was thirty. Plutarch, in his Roman question, inquires, why they were called arges? There are two reasons elioged; the first, that the barbarous nation who first inhabited these parts call all the Greeks they could meet with into the Tiber; for Argans was a common name for all Grecians; but that Hercules persuaded them to quit so inhuman a practice, and to purge themselves of the crime, by instituting this solemnity.—The second, that Evander, an Arcadian, and a sworn enemy of the Ar-
ARGONOMON, a name given by some of the late Greek writers, to the plant called sarpocolla by the other writers of their times.

ARGENNES, in Geography, a town of France, in the department of the Calvados, and chief place of a canton in the district of Caen, 5 leagues W. of Lisieux, and 25 1/2 E. S. of Caen.

ARGENCHUM, in Ancient Geography, a forest of Gallia Aquitana, near the place where Rochelle is now situated.

ARGENFELS, in Geography, a town and castle of Germany, in the district of the Lower Rhine, 17 miles N.N.W. of Coblentz.

ARGENNOS, in Ancient Geography, the name of one of the three islands called Troglolia, situates in the Ionian sea, on the coast of Asia Minor.

ARGENNUM, a promontory of Asia Minor, in Ionia, near the island of Halonaeus. Strabo and Ptolemy.—Alfo, a promontory on the eastern side of Sicily, now Cape S. Afflito.—Alfo, a promontory on the eastern side of the isle of Lebros.

ARGENOMESCUM, a town of Hispания Tarragonenfis, in the territory of the Cantabri. Ptolemy.

ARGENS, or ARGENTZ, in Geography, a river of France, which discharges itself into the Mediterranean.

ARGENS, John Baptist De Boyer, Marquis de, in Biography, was the son of the solicitor-general to the parliament of Aix in Provence, and born in that city in 1704. He took up arms against the inclination of his father, at the age of fifteen; but on his return from Conflantinople, he was convinced of the error of his course, and determined to return himself at the bar. Being displeased with this profession, he again embarked in the military service, in 1735. D'Alby, on examining him, found him to be very dextrous in the use of arms, and fit for a general, and recommended him to be promoted to the highest rank in that army. He was appointed to be his chamberlain, and continued twenty-five years at Berlin; where he married, and maintained the character of a good husband, friend, and master. At length he returned to his native city, and lived there as a philosopher till the year 1771, when he died suddenly on a visit to his father, the baronet de la Garde, near Toulon.

The marquis d'Argens formed himself upon the model of Bayle, and adopted those free sentiments with regard to religion and morals, which have been more in vogue on the continent from the time of Bayle and Montesquieu. With talents inferior to those of Bayle, he professed an ardent and determined spirit, which led him to make considerable acquisitions in literature and science; so that he understood several languages, had some acquaintance with chemistry and anatomy, and was a tolerable painter. As a writer, his style is diffuse and dilatory; and his works, though they manifest erudition and reflection, are rendered difficult and offensive by the licentiousness of morals, and the perpetual attacks on religion and its establishments, which are their characteristic features. The principal of these are, his "Jewish, Chinesé, and Cabalistische Letters," which, with the "Philosophy of Good"
Good Sense," compose twenty-four volumes in 12mo. published in French under the title of "The Works of the Marquis d'Argens" in 1768; a great number of romances, ill designed and negligently written, including "Memoirs of himself," of no great importance and value: "Translations from Greek into French of Oecclus Lucanii, Timoios Lucrensis, and the Discourse of John on Christinity;" and "Secret Memoirs of the Republic of Letters," printed in Holland in 4 vols. 12mo; and at Paris, in seven. The Jewish and Chinoes letters are now the most known; but his other works have sunk into oblivion. Nouv. Dict. Hist. ARGENSON, in Geography, a small town of France, in the mountains of Duaphiny and diece of Gap, two leagues from Alperse; usually called St. Pierre d'Argenson. ARGENT, a town of France, in the department of the Cher, and chief place of a canton in the district of Sancerce, one league and a half north of Aubigny. The place contains 1,043, and the canton 3,714 inhabitants: the territory includes 2734 kilometres and 4 communes.

ARGENT, in Heraldry, signifies white, or silver, and is so called in the blazoning of the arms of gentlemen, knights, and baronets; but for sovereigns and princes it is termed luna; for dukes, marquises, earls, viscounts, and barons, pearl. By engravings it is represented plain. The word is French, derived from the Latin argentum, silver; this colour being supposed the representation of that metal; whence the Spaniards call this field, campo de plata, plata field.

ARGENTA, in Ancient Geography, a town of the Illyrian region, mentioned by Livy.

ARGENTAC, in Geography, a river of Albania in Europe, which runs into the Adriatic, four miles north of Durazzo.

ARGENTAL, a town of France, in the department of the Corrèze, and chief place of a canton in the district of Talles, four leagues south-east of Talles. The place contains 2,574, and the canton 9,789 inhabitants: the territory includes 135 kilometres and 11 communes. N. lat. 45° 5', E. long. 1° 47'.

ARGENTALIS, in Entomology, a species of Phalaena (Pyralis, Gmel.) found in Germany and Piedmont, about the size of Phalaena paphia. It is cinereous brown, with three waved silverly frisks on the first pair of wings, and two on the second. Fabricius and Gmelin.

ARGENTAN, in Geography, a town of France, and principal place of a district in the department of the Oron, four leagues south of Falaize, and six and a half north of Alençon. The manufactures of this place consist of lace, linen cloth, and light stuffs. It is the Argentum or Argentomagus of the ancients. The place contains 5,618, and the canton 9,409 inhabitants: the territory includes 135 kilometres and 15 communes. N. lat. 48° 44', W. long. 0° 8'.

ARGENTINUM, in Ancient Geography, a town of Italy, in the territory of the Bruttii, noticed by Livy.

ARGENTARIA, a town of Germany, near which the emperor Gratian defeated 30,000 Germans. Prolem calls it Argentavaria and Argentovaria. It was ruined by Attila about the fifth century.

ARGENTARIA Cretica, silver chalk, in Natural History, a name given to an earth, not properly a chalk, but a kind of tripeb. It is a very beautiful earth, of a loose friable texture, and perfectly pure white. It is dug in Prussia, and is much esteemed for cleaning plate. It has also been found in France, and of late in Ireland.

There are many white chalks of various hues, which are dug in Germany, America, Italy, and other countries. That dug in the duchy of Mantua in Italy, is much used by painters, and at Rome vulgarly called gesso.

ARGENTARIUS is frequently used, in Roman Writers, for a money-changer or banker.

The argentarii were mostly people, who made a profit either by the changing or lending of money at interest. They had their tabernae, or offices, in the forum Romanum, built there as early as the reign of L. Tarquinius Priscus. The argentarii and ferrarii were much hated on account of their fraudulent practices and extortion. Du-Cange and Pitieux.

ARGENTARIUS, in Writers of the Middle Age, an officer entrusted with the custody of money.

In this sense argentarius amounts to the same with the Greek ἀργυριαστής, and our cobler. Du-Cange.

ARGENTARIUS Miles, in our Old Writers, an officer of the exchequer, whose business it was to carry up the bag of money from the lower exchequer to the higher, in order to its being examined or told. Spelman.

Argentarii is also applied, in the Civil Law, to those who adorned military arms with silver or gold.

In which sense the word amounts to the same with barnarbaricaris.

ARGENTARIUS MONTIS, in Ancient Geography, Mont ARGENTARO, a mountain of Eturia, in Italy, forming a promontory near the town of Lora.

ARGENTARO is a cape of Tuscany, south of Oristello, and call of the isle of Giglio. N. lat. 41° 55', E. long. 14° 21'.

ARGENTATA, in Entomology, a species of Phalaena, (Pyralis, Gmel.) The wings are yellow at the tips, with two silverly frisks on the anterior pair, and a quadruple black spot on the posterior ones. This is native of China. Gmelin and Fabricius. The anterior wings are silver at the base, with a large triangular brown spot; lower pair silverly, and yellow at the tip; and the four contiguous spots upon them have a brazyl gloss.

ARGENTATA, a species of APIS found in Barbary. It is downy, cinereous; abdomen black; margin of the segments white beneath, with silverly hairs. Gmelin. &c.

ARGENTATA, a species of Musca, about the size of Musca fuscata; it inhabits Saxony. The cutel is slightly bidentated; body black; abdomen covered with silverly down, with yellow lateral spots. This belongs to the genus Stratiomya in the Fabrician system, and must not be confounded with the following insect.

ARGENTATA, a species of Musca, that inhabits Europe. The colour is cinereous; with four black lines on the thorax; abdomen grey, changeable; front silverly on each side. Gmelin. &c.

ARGENTATA, a species of Aranea. The abdomen is white, with the posterior part brown; the margin with five dentications. This is a large insect, and inhabits South America. Gmelin.

ARGENTATA, in Ichthyology, a species of Sciaena, that inhabits the Arabian shore. The scales on the upper parts are blackish, with the margins and apex silverly; on the lower parts pale rufous, with paler margins. Gmelin. There is a large blue curved patch under the eye, which extends towards the mouth; inferior lip longest; lower lateral teeth in a row of larger ones, and behind these a row of smaller ones; posterior gill-covers terminating in an acute angle; fins reddish brown, dorsal one glaucous, with a pale rufous margin; spines of the anal fin becoming gradually longer and larger.

ARGENTATA, in Zoology, a beautiful little creature of the Simia genus, a native of South America; named by Buffon Mico; and by Pennant, the fair Monkey. It is tailed and bearded; white; face red; and tail brown. Gmelin. This creature is not much larger than a squirrel, measuring only
ARG

only about seven or eight inches from the nose to the rudi-
ment of the tail; and the tail itself is twelve inches long.
The whole animal is covered with hairs of a beautiful fine
filvery white; except the face and ears, which are red, and
the tail, which is of a deep brown. It is thus described by
Briss in Cercopithecus ex cineris albus argenteus, facie
auricuclidique rubin splendidissimus, cauda calicani coloris.
Quadr. p. 142. 13; and is Simia argentea of Sclerather.

ARGENTATUS, in Entomology, a species of Curculio,
very frequent on oaks, nettle, wild-trees, &c. in England
and other parts of Europe. Its specific character is

frequently: the whole body silvery green. Gmel. &c. The
colour of the shell itself is black, but being wholly covered
with beautiful minute scales of a fine filvery green colour,
the insect appears entirely of that colour before the scales
are rubbed off. This species is Curculio femoribus ommibus
denticulo notatus, corpore viridi oblongo, of Fik. Succ. 239.
Curculio squamosus viridi auratus, of Geoffroy; Curculio
urtice, of Degueur Inf.; and Curculio argenteus of Do-
nov. Brit. Inf. &c. Off. Gmelin has given another species of
Curculio under the same specific name, viz. Curculio
argentatus, of a silvery green, with the antennae and shanks
of the legs rufous, and the thighs brown and elevate; a na-
tive of Europe. This inattention of Gmelin is the source
of endless confusion; it is no unusual circumstance to find
in his arrangement two or even more very different species
under the same specific name in those genera that are ex-
tensive; sometimes indeed, to avoid confusion, he places
them in different families, but in the present instance, we
find both in the same family: ** Brevisyraxes, f femoribus
dentatis.

Argentatus, in Ichthyology, a species of Sparus that
inhabits the rivers in Japan, and is distinguished by having
a black spot behind the gills. It is covered with silver
scales, and is about five inches in length; and has two no-
trills before the eyes. Gmelin, &c.

Argentatus, a species of Centrogena that in-
habits the rivers in Japan. It is silvery, with a large brown
spot on the nape, and a blackish one on the dorsal fin.
This fish is about three inches and a half in length, and the
tail is forked. Gmelin, &c.

Argentatus, in Ornithology, a species of Larus, called
by Dr. Latham the silvery gull, and it also the silvery
gull of the Arctic zoology. It is white; the head and neck
furnished with cinerous: primary quill feathers black above,
beneath grey, and white at the tips. Gmelin, &c.—This
bird inhabits Norway.

Dr. Latham notices a species of Gull very much like
this in the Leverian Museum. The length is near sixteen
inches; bil a inch and a half long; quills as in the other;
but the two first have the ends tipped with white for near an
inch, instead of a small spot; and if of the prime quills had
the ends black; the bill and legs are pale, but as the bird
had been in spirits some time, nothing certain could be said

ARGENTEA, in Conchology, a species of Venus, of
a somewhat oblong shape, smooth, and silvery, with black
lines united into bands. This shell inhabits the shores
about Cadiz.

ARGENTEA, a species of Patella. This shell is smooth,
thick, and somewhat silvery, with eleven brown rays; mar-
gin silvery; tip pale yellow; bottom like ivory, with a
double white ring. It is a rare shell, about two inches in
length; and the native country unknown. Vide Schloet.
and Gmelin.

ARGENTEA, in Entomology, a species of Cantharis,
found in Africa, and described by Professor Thunberg. The
legs are black, and with the wing-cases are green; the ab-
domen is silky silvery. To this is added, that the head is
black; and legs and yellowish; feet brown.

ARGENTEA, a species of Sphex that inhabits Coromandel.
It is black and glossy; front villous and silvery; wings
white, and brown at the tip. This is a large insect, Fab-
ricius and Gmelin.

ARGENTEA, a species of Aranea that inhabits the de-
serts of Ual, and is deemed a poisonous creature by the
Calmucks. The thorax is depressed, orbiculated, white,
with two black flaps; abdomen ovate, lobed, silvery, with
two pair of dots in the middle, and four rows behind.
Lepech. it. p. 316. This insect spin a perpendicular web;
the legs are long, black, and annulated with yellow. Gmelin.

ARGENTEA, in Ichthyology, a species of Perca that
inhabits America, and is thus very concilely defined by Lin-
neas and Gmelin: nothris tubular; there is a large black
spot on the spinous part of the dorsal fin.

ARGENTEA, a species of Scilena. It is silvery, spotted
above with black; beneath immaculate. Fork. Ind. Arab.
The crown is fcarly; two elevated lines between the nothris;
iris silvery above, brown; teeth numerous, fettaceous, mov-
able, the outer row larger; dorsal fin connected, and
spotted with black; the fin rounded, the other linear;
ventral and anal fin pale rufous, pointed at the ends; tail
somewhat bifid.

ARGENTEA, in Natural History, a species of Sertula-
aria that inhabits the European and American seas; and
is called by Ellis the squirrel's tail; it is also Corallina
comis ad inular caudae vulpingeauris of Mercat.; and Mus-
carinus minor, denticulis alternis bifugis of Morif.
Hift. Pl. &c. According to Linneas, Solander, Gmelin,
&c. its specific character is this: denticles nearly opposite,
and pointed, vertices oval; branches alternate and papillated.

ARGENTEA, Aslem, in Ancient Geography, a town situate
at the northern point of the island of Jabadul. Ptolomy.

ARGENTEAU, in Geography, a deplotted town of the
Netherlands, in the duchy of Limburg, two leagues west of
Dalem.

ARGENTEOLA, or ARGENTIOLUM, in Ancient Geo-
ography, a town of Spain, in Aloria. Ptolomy.

ARGENTELLA, in Entomology, a species of Phala-
ena (Tinea, Gmel.) It is entirely silvery, except the an-
tene, which are annulated with brown. Linn. Fabr. This
is lineae perlola of Wien. Schmetterl. p. 134. The larva is
gregarious, glabrous, brown, and feeds on the nettle. De-
gee, &c.

ARGENTERO, in Geography, a mountain of European
Turkey, between Bulgaria and Macedonia.

ARGENTEUIL, a town of France, in the department of the
Seine and Oise, and chief place of a canton, in the dis-
trict of Verailles, eight miles N.W. of Paris. The place
contains 4,726, and the canton 16,577 inhabitants: the ter-
ritory includes 67,413 kilometres, and 11 communes.—Also,
a town of France, in the department of the Yonne, three
leagues from Tonnerre.

ARGENTEUMO, in Natural History. See Os. Argenteum.

ARGENTEUS, in Coinage. See Denarius.

ARGENTeus, in Entomology, a species of Scarabaeus,
found in England, and the interior of Austria. It is black,
beneath silvery, and shining; margin of the shield and wing-
cases
ARGENTIUS, Codex, in Biblical History, a manuscript of the fourth century, is so called from its silver letters, and is supposed to be a copy of the Gothic version made by Ulphilas, the apostle of the Goths, in the fourth century. It is one of a group of three leaves, which are vellum, parchment, or papyrus, and are stained with a violet colour; and on the ground the leaves, which are all capitals, were afterwards painted in silver; except the initial characters, and a few passages, in gold. Mr. Croke, from a close inspection, was convinced that each letter was painted, and not formed, as some have alleged, by a hot iron upon leaves of gold and silver. Most of the silver letters are green by time; but the golden letters are still in good preservation. This codex is mutilated in several places; but what remains is, for the most part, perfectly legible. It was first discovered in 1597 in the library of the Benedictine abbey of Werden in Westphalia, whence it was brought to Prague, and at the capture of this city in 1648, sent as a valuable present to Christina of Sweden. It afterwards came into the hands of Isaac Vossius, either by theft, or as a present from the queen; and on the death of Vossius, it was purchased by Count Magnus Gabriel de la Gardie for two hundred and fifty pounds, and presented to the university of Upsal, where it now remains. Three editions of it have been given to the public: the first was printed at Dort in 1609, by T. Junius, who borrowed the MS. from Vossius; and accompanied with observations and a glossary, by Thomas Marshall. That printed at Amsterdam in 1672, is the same with this, having only a new title-page, date, and place of impression. The second edition, published at Stockholm, in 1672, by the learned Stierhelm, differs from that of Junius, by having the text in Latin, and not in Gothic characters. Stierhelm, first librarian of the university of Upsal, and afterwards archbishop, collated the MS., rectified mistakes, and made a literal translation into the Latin tongue. These collations and translation, together with various editions, were transmitted to Mr. Edward Lye, of Oxford, who published a third edition in 1750, from the Clarendons press; this is esteemed, by those who have compared it with the original codex, a complete work. Two opinions have divided the learned concerning the original tongue of the codex argenteus; the first opinion, that it is written in the language and character used in the fourth century by the Goths of Moesia, ancestors of the present Swedes, and is a true copy of the version made by Ulphilas, is strongly supported by Junius, Stierhelm, David Wilkins, Stierhelm, and Lye. The second opinion, viz. that it is a translation in the Frankish idiom, is warmly defended by Hung, la Croze, Wetstein, and Michaelis. Mr. Croke inclines to the former opinion, which is confirmed in an ingenious treatise of Lhe; by which it appears that several specimens of the Old Gothic tongue have been lately discovered in Italy, which perfectly resemble both the characters and language of the version in the codex argenteus. However this be, as the Old and Frankish idioms were dialects of the Teutonic or German, this MS. must be considered as the most ancient specimen extant of that language. Those who attribute the version to Ulphilas, refer its date to the fourth century; and those who deem it to be a Frankish translation, allow it to have been copied in the reign of Chloderic, between 564 and 575. Besides, its high antiquity is proved from the fact that, at the end of the Lord's prayer, Matt. vi. 13, which is not found in any of the most ancient versions; and also from the interpretation of many passages in a manner made with several of the Latin translations, which are antecedent to the Vulgate of St. Jerome. Another fragment of this curious MS. containing a few chapters of St. Paul's epistle to the Romans, was found at Wolfenbuettel, and is now preserved in the library of that town. Of this fragment I have published a new and important edition, at Upsal, in 1763. Michaelis's Introduction to the New Testament, by John, vol. n. p. 123—135. Croke's Travels, vol. iv. p. 173—183. ed. 1832.

ARGENTHAL, in Geography, a small town of Germany, in the circle of the Upper Rhine, and district of Simmern, forty miles south of Trier, and four south-east of Simmern.

ARGENTICUS, among Ancient Historians, denotes a kind of silver-haired comet, of uncommon splendour, supposed to be the cause of great changes in the planetary system.

ARGENTIER, John, in Biography, born at Caffelino in Piedmont, in 1514, acquired considerable celebrity, though his talent was rather that of teaching the art than practising, as he was well versed in the theory of medicine, and had read and commented on most of the old writers, but his memory was so defective, that he was rarely able to apply the observations he had made for the benefit of his patients. He taught medicine at Naples, Pisa, and lastly at Turenne, where he died in 1572, aged 58 years. His works were collected and published at Venice, in two vols. in folio, 1592; and have been since twice printed. He prided himself much in having discovered some errors in the works of Galen, whose doctrines he frequently opposed. Haller, Bib. Med. Pract. Essay. Dict. Hall. de la Med.

ARGENTIERA, a volcanic island of the Archipelago, formerly called Cimolias or Cimola, one of the Cyclades, which lies about sixteen miles in circumference, i.e. and derives its name from a mine of silver that was for a long time worked in it with success; but it is now unknown. The soil is extremely dry, and destitute of springs; nor is there any water here but what is collected in cisterns, or brought from Milo, an island at a little distance: the hills, vales, and the whole country are covered with trees, do not offer a single shade to defend from the sun. The Venetians, during their war with the Turks, cut down all the olive-trees, and did irreparable damage to the island: nor do the present inhabitants dare to make fresh plantations, lest they should draw on themselves heavier impositions. Such is the mistaken policy of the Ottoman government; if its subjects manifest any industry, it is immediately taxed, and illused in its birth. Argentiera presents nothing but rocky hills, defitute of verdure, and valleys producing worthless shrubs and thorny thickets. The vales are generally covered with a white and fat clay, called by the ancients Terra Cimolias, or Cimolia Cretia, a kind of Fuller's earth, which the inhabitants employ instead of soap to wash their linen. See Cimolia Terra. Though the soil is barren, the industrious islanders make it produce for them a subsistence.
The women spin cotton, and knit flockings, whenever the labours of the country allow; and the men employ themselves in fishing and navigation. Excellent fish are taken round the island, especially the rouget (the sardine, mulla'de Linnaeus), a fish well known and highly esteemed for its delicate flavour on all the coasts of the Mediterranean. The tribe of Greeks which inhabits this island, is composed of two hundred persons, according to Olivier; two hundred families, as Sonnini reports; or, as others say, about five hundred persons; who have no Turkish officer resident amongst them, but have an annual visit from the captain pacha, who, besides levying an impost of 15 or 1600 piastres, which they find it difficult to pay, exacts presents to a considerable amount, so as to reduce the inhabitants to misery. Cotton is almost the only article that produces for them any money; their cotton flockings supply the Egyptians; and, in former times, supplied their hogs, poultry, and eggs. The dress of the Greek women of Argentiera is peculiar: they swell out their legs by wearing several pairs of flockings, and appear as if they were booted, which they consider an effectual part of dress: their garments do not descend below two inches below the knee, and these are so contrived as to spoil their shape, and render it impossible to form any idea of the beautiful proportions with which they were formed by nature. The neck is concealed under a corset, quilted, and stiffened with whale bone; a piece of velvet, taffin, or cloth trimmed with gold or silver netlace, or let by a fine embroidery, adorns their whole front; and in their gala dress, two wide fleeces are fixed to the corset, and fall on each side to the middle of the thigh. In summer the whole arm is covered only by the sleeve of the shift, the head is enveloped with a handkerchief which passes under the chin. In other respects they are cheerful, lively, and handsome. Savary.

The only inhabited place in the island is seated on the summit of a mountain of rocks, to which the ascent is very difficult. The houses are few, miserably constructed, and filled with flies; but it is surrounded by high walls, and for two gates. Their dwellings, which may be rather called huts or dens than houses, are covered by a roof, consisting only of a fort of wo den hurdle, on which earth is spread and beaten. The superstitious Greeks rely on heaven, more than on the structure of their habitations, for their security. Accordingly, on the eve of the festival of the exaltation of the holy Cross, it is an ancient custom to sweep and nicely clean the flat roofs of the houses; and towards evening, when the bells of the churches begin to ring, the inhabitants show upon them large crosslets, which figures are, in their estimation, the most effectual means of preserving the tops of their houses from being penetrated by the rains. The single street of which this wretched town or village consists, unpaved, is, in the rainy season, a long heap of deep mud; and the water, finding its way into the rooms of the ground floor, which are almost subterraneous, renders their habitations equally unwholesome and inconvenient. The small church or chapel of the Capuchins, serves for the catholics of Argentiera; and a peculiar priory, built in the island of Scio, and educated at Rome, performs divine service in this chapel, and assumes the title of the grand vicar or nominal bishop. The town is of very modern construction, having been erected so lately as the year 1649, by some Greek fugitives from the island of Sipan, who are said to have brought with them an image of the Virgin; and built houses, where this image had slept with them, and preferred them from the attacks of their enemies. Several Greek churches or chapels are built behind the village, all of which have little bells above their portals, which are frequently in motion. About half a league from this town, Olivier found fragments of bricks and potter's ware, which indicated the position of the ancient town; and upon digging in this spot, he discovered some rude figures of baked earth, such as a toad, a sphynx, and a cock, and also a small vase with a handle in the Etrurian style. He also perceived canals in the bank of lava, probably for the purpose of affording a passage to boats, caves for shelter from the rain and sun, and other caverns, which might have been places of habitation or interment at different epochs which history has not recorded.

This island is nothing but a group of volcanic substances, and exhibits every where indications of a great combustion. In several places the rocks are calcined; pozzolana was found here by Olivier, and the hot waters which issue from a rock near the sea, in the north-west part of the island, attest the existence of a subterraneous fire in full activity. The herd of these waters is so fitch, that a person cannot hold his hand in them, and an egg is in an instant boiled hard. The Greeks reckon them efficacious for curing rheumatism, sciatica, and other disorders of that nature, by means of linen cloths steeped in them and applied to the parts affected. Near these waters is the mouth or centre of an ancient volcano, which, for a long time, exhaled infectious vapours, whence the modern Greeks have called it "vromo imino," or flinking lake. This gulf is now a lagoon of the sea, which no longer yields any bad smell. To the north of this lake are several grottoes or caverns cut in the rock, which seem to have served as habitations. Sonnini observed in this place a great number of thuribles of the large species, together with blackbirds, linnets, pettichaps, partridges, woodcocks, &c. In the north-north-east quarter of the island is a district called "Kedros," because it is furnished with the species of tail junipers so denominated by the modern Greeks, being a variety of the "juniperus oicifera" of Linnaeus. They yield to gum in this island; but the Greeks make use of the oil, which they draw from the stem and branches, for the cure of the itch. The environs of "Kedros," or the side of Kedros, furnish a great quantity of wild artichokes; which the inhabitants gather and cat with avidity. The most common shrub on the island is the lentisk, the fruit of which yields on expression an oil, which is fit only for burning, though the poor use it in their food, and it is applied as a topical remedy for rheumatic pains. Saffron also grows on the mountains, and between the rocks of the island, and it is sold in the markets by the weight of eggs. The road-lead of Argentiera, most frequented by the ships which navigate in the Archipelago, is formed by the isle of Muro to the south-west, by that of Argentiera to the north, and by the small islands of San Georgio and of Polvo to the east. Trading vessels anchor between the islands of Argentiera and San Georgio, and are here sheltered from the wind and sea. But this anchorage has not a sufficient depth of water for ships of war and large vessels, which pass more to the north or north-east, in a channel near Polvo. N. lat. 36° 48'. E. long. 24° 40'. Olivier's Travels in the Ottoman Empire, p. 126-133. Sonnini's Travels in Greece and Turkey, p. 281-327.
ARGENTIERA, a town of Italy, belonging to the Venetian frates in the Cadorin, eleven miles N. N. W. of Pieve di Cadore.

ARGENTIERE, 1°, a town of France, in the department of the higher Alps, and chief place of a canton in the district of Briançon, on the Durance, nine miles north of Mont Dauphin.

ARGENTINA, in Botany. See Potentilla.

ARGENTINA, in Geography, a town of Savoy, in the county of Maurienne, near the river Arc, sixteen miles E. S. E. of Chambery.

ARGENTINA, a town of Italy, in the kingdom of Naples, and province of Calabria Citera, at the foot of the Apennines, ten miles S. W. of Bologna.

ARGENTINA, in Entomology, a species of Phalena, (Barnay, Gmel.) that inhabits Germany. The wings are indented, grey, with silvery spots. Fabricius. When this insect is at rest, the wings have three creet tufts on the back. The larva is naked and grey; with the fourth, eleventh, and twelfth segment tuberculated; the pupa is obtuse and brown; feeds on oak.

ARGENTINA, a species of Phalena, (Nodina, Gmel.) found in the southern part of Russia. The wings are grey, with a broad abbreviated silvery stripe. Fabricius and Gmelin.

ARGENTINA, in Ichthyology, a genus in the order Abdominates, containing only four species; viz. Sphyrena, glossodonta, carolina, and machnata. The generic character is thus defined by Gmelin. Teeth in the jaws, and tongue; eight rays in the gill membrane; vent near the tail; and many rays in the ventral fins.

ARGENTINA, in Natural History, a species of Echinorhynchus, so named, because it infests the intestines of the atherine, atherina of Linnaeus. Redi, Gmelin, &c.

ARGENTINE flowers of anitomy. See Antimony, § 6. Oxyds of antimony.

ARGENTINE, of Kirwan. See Sichler spath.

ARGENTINUS, of Kirwan. See Sichler spath.

ARGENTOMAGUS, in Ancient Geography, Argentor, a town of Gaul, belonging to the Bituriges, in the road that led to Mediolanum on the east, and Limontum on the west.

ARGENTON, in Geography, a small and mean, but gay and lively town of France, in the department of the Indre, and chief place of a canton in the district of Chateauroux, five leagues S. S. W. of Chateauroux. It is situated in a beautiful valley, surrounded by vineyards on the Creuse. The place contains 3365: and the canton 10,359 inhabitants: the territory includes 290 kilometres, and 10 communes. N. lat. 46° 35'. E. long. 1° 52'.

ARGENTON le Chateau, a small town of France in the department of the Two Sevres, and chief place of a canton in the district of Thouars; 3 leagues west of Thouars. The place contains 270 and the canton 7937 inhabitants; the territory includes 3425 kilometres, and 19 communes. N. lat. 46° 59'. W. long. 0° 33'.

ARGENTON les Eglises, a town of France in the department of the Two Sevres, four miles north of Thouars.

ARGENTOR, a river of France in the department of Charente, formed by two streams called Argent and Or, and running into the Charente at the village of Porfai.

ARGENTORATENSIS, or Ornithology, a species of Fringilla found in the environs of Strasbourg. It is called by Bruton Linnæus argentoratensis; and by Buffon, Gymel de Strasbourg. This bird is brown; beneath, rufous with brown spots; abdomen and vent whitish. Gmelin.

To this specific character may be added, that it fearlessly exceeds the size of the common linnet; the quills and tail are brown; and the legs reddish. It is familiarly known about Strasbourg by the name of Gymel, and is said to lay sometimes four eggs, but seldom if ever more.

ARGENTORATUM, in Ancient Geography, Strasbourg, a city of Gaul, belonging to the Triboci, or Trebochi, which was a passage from Gaul to Germany, whence its name Strate-bargus, or Strasbourg. It had anciantly a manufacture of offensive and defensive arms of every kind. In the fourth century, Julian gained, under the walls of this city, a famous victory over the Germans, and took their king Chondomarus prisoner. After the establishment of Christianity among the Gauls, it became an episcopal see.

ARGENTRE a Laval, in Geography a town of France, in the department of the Mayenne, and chief place of a canton in the district of Laval, four miles west of Laval. The place contains 1665, and the canton 7570 inhabitants: the territory includes 1821 kilometres, and 9 communes.

ARGENTORATI, a town of France, in the department of the Ille and Vilaine, and chief place of a canton in the district of Vitte, seven miles north-north east of La Guereche. The place contains 2285, and the canton 12,855 inhabitants: the territory includes 2015 kilometres, and 9 communes.

ARGENTUR, in Ancient Geography, a town of Belge Gaul. Ptolemy.

ARGENTUS. See Silver.

ARGENTUS album, mentioned in Domestical book, signifies, according to Spelman, bullion, or silver unwrought. In those ancient days, such metal paid as money from one to another in payment. Samitaur pro quo hoc metallo profite non figurato.

ARGENTUS Del, God's penny, anciently signified earneth-money, or money given to buy a bargain; in some places called erekis, or arks, and by the civilians and canonnets, arme. Et cepit de praedito Henrico tres denarios de argent Del pra manibus.

ARGENTUS fulminans. See Satins of Silver.

ARGENTUS muficus or museum. This is a metallic alloy in the form of silvery flakes, used as a pigment for giving a white metallic lustre to plaster casts, paper, porcelain, &c.

It is prepared in the following manner. Take an ounce and a half of pure tin, and the same quantity of bismuth; melt them together in a clean crucible, and flir the mafs repeatedly with a clean iron rod till the two metals are accurately mixed. Then remove the crucible from the fire; and when its contents are on the point of becoming solid, pour in an ounce and a half of warmed quicksilver; stiring it as before. Previously to using this alloy, it must be ground in a stone or earthenware mortar, with white of egg or spirit varnish, and in this state applied to the intended work: when dried it may be burnished in the usual manner, and has then very much the appearance of silver. Encyclopedia. Method. Arts & Metiers, art. arg. fusicon.

ARGENTUS nitratum, in Pharmacy, otherwise known by the names Nitrated silver, and Lunar caustic.—See Silver, medical preparations of.

ARGENTUS vivus. See Mercury.

ARGENVILLE, in Biography. See Dezallier.

ARGENUS, in Ancient Geography, a port of Carmania. Phiny.

ARGENUS, or ARGUS, in Ancient Geography, a small island situated near the coast of Asia Minor, south-east of the isle of Lesbos and near it. They were rendered famous by the battle gained by the Athenians over the Lacedemonians, in the twenty-sixth year of the Peloponnesian war, or the 46th year before Christ. Of these three islands, the largest had a town called Arginus. CAGENUS, a small isle of Egypt, near Canopus; so called from Argus, king of Macedon, who began his reign in the 67th year before the Christian era.

ARGESTES, is used by Vitruvius for the wind which blows from that quarter of the horizon, which is 75° from the south and westward.

Ricciulus
ARG

Ricius uses the term to denote the wind which blows at 23° 30' from the west towards the north, coinciding with that which is otherwise called W.n.w. All. Reform. ARGENTIN, in "Ancient Geography," a people of Asia who inhabited the western banks of the river Indus. Pliny. ARGENTINAR, in "Astronomy," a star of the fourth magnitude, in the flexure of the constellation Eridanus.

ARGIAN, in "Geography." See RIGIN.

ARGIA, in "Entomology," a species of Papilio (Dan. Carol. Gmel.) The wings are rounded, entire, and white; tip of the anterior pair black. This is a native of Sierra Leona in Africa; and is figured by Cramer under the name of Calceosa. There is a large brown spot near the apex of the anterior wings beneath; and the inner margin is beft with long, falciculated, erect, white hairs. Fabricius, &c.

ARGI, in "Geography." a town of Arabia Deserta, 360 miles S. S. E. of Ana. This is also the name of one of the three principalities into which Arabia Deserta is divided.

ARGIADENS, in "Entomology," a species of Papilio (Phil. Rural. Gmel.) The wings are entire and blue, with a blackish margin beneath, the colour is a brownish-grey, with a linear mark, and two rows of occluded dots. Fabricius.—This insect inhabits Saxony.

ARGLE, in "Geography," islands of Asia Minor, on the coast of Caria. Pliny. ARGIANs. See ARGIVES, and ARGOS.

ARGIL. See CLAY.

ARGIL. native.—Alumine native, Fr. Reine Thonere, Germ. Argilla pura. Werner. This mineral (called also by some Lac Lune, ") is of a snow white or yellowish white colour. It is found in various sized kidney-shaped masses; is amorphous; and presents a fine-grained earthy fracture; it flies when broken into indeterminate blunt cornered fragments. It is opaque, but when boiled in water acquires a degree of fermenltransparency like gum tragacanth; stains the fingers, feels somewhat meagre; adheres lightly to the tongue, and exhauses, when molifted, an earthly film. It is easily broken, being almost friable. Sp. gr. according to Bergmann = 1.905; according to Gmelin = 1.669.

Native Argil is insufhsible per se even at 166° Wedgeood. It is soluble in mineral acids sometimes with and sometimes without effervescence, on account of a small proportion of carbonated lime with which it is often mixed. By the analyses of Schreber and Frischmann, it is also found to contain a few flight traces of iron and fles. It is said, with little probability however, that this mineral has been procured in Sileia, at Pollinier, and in Lombardy; the most authentic specimens come from Halle in Saxony, being found in the garden belonging to the college there; hence it has been supposed to be an artificial product, and the fibre of it is underfoot to have been for some years past exhausted. It is not made use of. Widenmann, p. 385. Lenz. verfich, &c. vol. i. — Brochant, vol. i. Kirwan, vol. i.


ARGILITUM, the name of a small hill of Rome, between mount Aventine and the Capitol. Num. erected on this hill by the Aventines.

ARGILUS, a mountain of Egypt, near the Nile, so called because Jupiter carried thither the nymph Arges, and had a son by her named Dionysus.

ARGILL, or ARGILL, in "Ornithology," one of the synonymous names of the Linnean Ardea diiha, and gigantic crane of Dr. Latham, being so called by Ives, it. p. 183.

ARGILLACEOUS, in "Agriculture," such ground or soil as contains a large proportion of clayey matter in its composition. See Soil. VOL. II.

ARGILLACEOUS, marl, that sort of marl which contains much clay. As a manure, this kind of marl is the most proper for the sandy and light sorts of soil.

ARGILLACEOUS earths. See ALUMINE.

ARGILLACEOUS schistus. See THONSCHIPE.

ARGILLITE of Kirwan. See THONSCHIPE.

ARGILLITICITE of Kirwan. See MARL.

ARILY in "Geography," a town of France, in the department of the Côte d'Or, and chief place of a canton, in the district of Beaune, fifteen miles south of Dijon.

ARGILUS, in "Ancient Geography," a town of Thrace in the vicinity of Amphipolis, at the mouth of the river Strymon. Thucydes (I. iv. § 103.) says, that the Argilis were a colony of Andrians, established in the neighbourhood of Amphipolis.

ARGINA, or ARGYNA, an ancient town of Greece in the country of the Ozolian Lucrians. Pliny.

ARGINUS. See ARGUS.

ARGIOUS, in "Entomology," a species of Papilio (Phil. Rural. Gmel.) The wings are tails; above blue, with a black margin beneath; white more richly dotted with black. This insect inhabits Europe. Linnæus, &c.

ARGIPPEI, ARGIPPEANS, in "Ancient Geography," a people of Scythia, whose language was different from that of the Scythians, though they resembled them in their dress. They laboured not on the produce of the chase, but on the fruit of a tree, called "pontaria," of which, when ripe, they made a black and thick liquor, which they drank either clear or mixed with milk. Of the hulks they prepared a kind of cake which they reckoned nutritious. As they lodged both in summer and winter under trees, they formed a covering to shelter them. Such perfons, it is said, were deemed sacred, so that they had no occasion for military weapons in their own defence; and such was their reputation for wisdom, that their neighbours referred disputes to their arbitration, and their abode served as an inviolable asylum.

ARGIRA, a small fountain of Achaia, not far from Charadrus.

ARGIRI, or, as it is called by Arrian, Argali, a town of India, on this side of the Ganges. Ptolomy.

ARGIRO CASTRO, in "Geography," a town of European Turkey, in the province of Livadia, 26 miles north-west of Lepanto.

ARGISCH, a town of Wallachia, on the frontiers of Transylvania, 8 miles north of Helmanitau, and 8 south of Tergowitz.

ARGISH, a town of Asia in Armenia, seated on the lake Van. N. lat. 38° 32'. E. long. 43° 15'.

ARGITHAMNIA, in Botany, (from Argito, white, and 


Eff. Gen. Char. male, Cal. four-leafed, Cor. four-petalled. Female, Cal. five-leafed. Cor. none; styles dichotomous. Caps. trilococceus, with solitary seeds.

Species 1. A. candidum. Swartz. This shrub fihs about five feet high, covered with a whitish bark; leaves at the ends
of the branches which they surround; they are oval, serrate, of a dark green, about one inch and a third in length, and an inch in breadth; flowers axillary on short peduncles; calyx five-lobed; flowers fix, greenish. The leaves when bruised are very odoriferous. A native of Jamaica, on a dry gravelly soil.

ARGITHEA, in Ancient Geography, a town of Greece, the capital of Attamania, according to Livy.

ARGIVES, a people of Greece, who inhabited that part of Peloponnese called Argolis; which see.

ARGIZALA, or ARGISAMA, a town of Asia Minor, in Gliata. Ptolemy.

ARGO, in Antiquity, a ship or vessel celebrated among the poets; being that wherein the Argonauts, of whom Jason was the chief, made their expedition in quest of the golden fleece.

This ship, according to Diodorus Siculus, Apollonius, Tzetzes, Servius, and many other writers, is said to have derived its name from Argus or Argo, the person who, under the direction of Minerva, contrived it; others have thought, that it was called Argo from the Greek word *argos*, care. Some again have attributed its name to that of Argos, the city in which it was built. Cicero cites, in his first Tif Unterstüt, two verses from an ancient Latin poet, who ascribes the appellation of Argo to the Argives or Greeks who sailed in it. Ovid, and many others, call it a sacred ship; and it was thus dedicated, probably, because Minerva was said to have given instructions for building it, or because it was partly constructed of some sacred timber from the grove of Dodona, which was sacred to Jupiter Tomarius, and which sheltered oracles.

Authors generally represent this ship as a long vessel, resembling the modern galleys, and furnished with 30 benches of oars. It could not, however, be of any great bulk, if the ancient tradition be true, which reports, that the Argonauts were able to carry it on their backs from the Danube to the Adriatic sea. However this be, Jason, it is said, happily accomplished his enterprise; and consecrated the ship Argo to Neptune; or, as others say, to Minerva, in the isle of Corinth; where, they add, it did not remain long before it was translated into heaven, and made a constellation. For an account of this enterprise, and of the persons concerned in it, see Argonautic expedition, and Argonauts.

ARGO Navis, or the Ship, in Astronomy, is a constellation of fixed stars in the southern hemisphere, whose stars, in Ptolemy's catalogue, are 457; in Tycho's, 11; in the British catalogue, and Sharp's Appendix, 64.

Argo, in Conchology, a species of Argonauta that is distinguished from others of the same genus by having the flat keel of the shell chiefly toothed along the edges on each side; or, as Linneus expresses it, "carina utrinque subdentata," keel subdenticulate on each side. This is *nautilus teindeli* of Rumphius, *bohemia* of Gmelini and Telfin, *nautilus fidecus* of Klein, *nautilus papraceus* of Argenville, and *nautilus nautilis*, sailor-shell, or sailing-shell, of English collectors.

The animal inhabitant of this shell, as the common character of the argonauta implies, is either a *jefa* or a *dio*; most probably the former; and its appearance and manners of life are so singular and interesting, that they did not escape the notice of some of the earliest writers on natural history with whom the moderns are acquainted. It is a native of the Mediterranean and Indian seas, and is supposed to have taught mankind the use of sails, and the art of navigation in the infant state of society; our admired poet alludes to this opinion in the following well-known lines in the

> "Elyas on Man:"?

5

ARG

"Learn of the little nautilus to sail,
Spread the thin oar, and catch the driving gale."

When this creature intends to sail, it discharges a quantity of water, by which its specific gravity is made less than the sea-water in which it lives, and rising immediately to the surface, erects its arms, and expands a membrane between them, by means of which it is driven before the wind like a vessel under sail; at the same time that two of its arms which hang over the sides of the shell, serve for oars and rudder, as occasion may require. In this manner it is not unfrequently seen by navigators floating upon the surface of the water in calm weather; but the moment a storm rises, or that any thing disturbs them, they lower the sail, draw their arms into the shell, and taking in as much of the water as will sink them, descend directly to the bottom.

Pliny, H. N. xi. 29, &c.

ARGOB, in Ancient Geography, a district of Palestine, belonging to the half tribe of Manasseh, in the country of Bani, one of the most fruitful on the other side of Jordan. In this district there were 63 cities, called Havoth Jair, which had high walls and strong gates.—Also, the capital of this district. (Deut. iii. 14.) 1 Kings, iv. 13.) which, according to Enecius, was 15 miles west from Geraf. This is probably the same with Ragab or Ragaha, mentioned by Jofephus, and in the Misna.—Argob was also a place in Samaritani, near the royal palace, where P. kah, the son of Remalshah, affiliated Pekalish, the son of Menahem, king of Israel. 2 Kings, xv. 25.

ARGODA, or ARGUM, a town in the interior of the Tauric Cheroneus, to the south of Portaera. Ptolemy.

ARGOENUS MONTI, a mountain of Asia, towards N. lat. 38° 20' north of mount Taurus.

ARGOL, in Chemistry, the fame with TARTAR.

ARGOL, See ARGIC.

ARGOLIS, in Geography, a town of France, in the department of Finisterre, and chief place of a canton in the district of Chateaulin, two leagues north west of Chateaulin.

ARGOLI, Andrew, in Biography, an Italian mathematician, was born at Tagliacozzo, in the kingdom of Naples, whence he removed to Venice. Here his merit was acknowledged, and he was appointed professor of mathematics in the university of Padua; and in 1636 distinguished by the title of chevalier. He died in 1657, and left a treatise "De diebus criticis," printed in 1652, 4to.; and "Ephemerides," from 1620 to 1700, 4 vol. in 4to. Nouv. Dict. Hist.

ARGOLIC SEA, in Ancient Geography, a name given by some writers to part, and by others to the whole of the Aegean Sea.

ARGOLIC BAY, now the gulf of Napoli, was formed by a part of the sea that intercepted the peninsula called Argolis on the south-east, and Laconia on the west. In this bay Phily places the following islands: Pityufa, Irene, Epyphere, Tiperans, Aperopas, Colonios, Arilleia, and Calauria.

ARGOLIS, so called from an ancient prince whose name was Argos, one of the first districts of the Peloponnesus, situate on its north-east side, was bounded by Achaea on the north, Arcadia on the west, Laconia and the Argolic gulf on the south, and the Aegean sea on the east. The ancient limits are not clearly ascertained; but it was much enlarged by force of its monarchs, so that it extended from east to west about 70 miles; and from north to south, from 37° 2' to 38° 20' N lat. or about 50 miles. This province is peculiarly interesting to the Grecian antiquarian and historian, because it was the cradle of the Greeks, since it first received the foreign colonies by whom they were civilized. It became the theatre of most of the events recorded in the early annals of Greece. Here flourished Inachus, who gave
ARG

gave his name to the river which waters the territory of Argos: its other rivers were Charadus, Eranus, and Phryxus: there also lived Danaus, Hypermenæa, Lynceus, Alecæon, Perillus, Amphitrion, Pelops, Atreus, Thyestes, Agamemnon, and many other celebrated heroes and heroines. This province contained the cities of Argos, Nemea, Mycenæ, Naupliæ, Tzæzænæ, and Epidauros. The kingdom of Argos was founded, according to Eufebius, 1080 years before the first Olympiad, or 1856 years before Christ, by Inachus, and continued under the name of the Argolic kingdom till the reign of Acræmus, the fourteenth king, who transferred the seat of it to Mycenæ about the year 512 from its foundation; from which time that part of it was called the kingdom of Mycenæ till the division, when the Heraclidæ made themselves masters of this and of the whole peninsula, after it had flooded upwards of 754 years under the government of twenty-one monarchs. The Argolic kingdom, properly so called, retained likewise its own kings after this division, until the Heraclidæ, who divided the peninsula of Peloponnesus into three kingdoms.

That of Argos had not continued above 40 years, before Mælas, their last king, having made an effort to recover the royal prerogative, lost both his kingdom and life. At the period which Homer (Il. ii. v. 559 to 580) celebrates, Argolis appears to have been governed by two dynasties, of which the one reigned at Argos, and the other at Mycenæ; and the respective princes were Diomede and Agamemnon. The king of Mycenæ was at that time the most powerful chiefain not only in Argolis, but in the whole of Greece. The misfortunes of the family of Agamemnon soon led to the humiliation of Mycenæ. Argos became pre-eminent in the district of Argolis, and the Argives, inhabitants of Argos and its dependencies, during the historic ages of Greece, occupy the most prominent part of their faction of the peninsula. In their domestic institutions, the Argives, in common with other Grecian states, were first governed by limited kings, and afterwards their princes having attempted to become absolute, they established a republican form of government. In a maritime situation, and having easy access to the growing refinements of Asia Minor, of Corinth, and of Athens, the Argives successfully cultivated commerce and the arts; and though they did not neglect rural occupations, they were much less exclusively addicted to丈夫 and agriculture than their inland neighbours of Arcadia. The accessibility of their country, and their vicinity to the heroic and aspiring Spartans, exercised their courage in contests of defence, while their own ambition impelled them to offence and aggression.

About a century before the first Persian invasion, the Argives manifested a desire and intention to reduce and command the inferior towns of the province. The influence of the capital provoked the indignation of the country. Mycenæ, Tzæzænæ, Epidauros, and other places of less note, were often conquered, but never thoroughly subdued. Interest taught them to unite, and union enabled them to act at defiance the power of Argos, by which they were branded as rebellious, and which they reproached as tyrannical. Having many contests with the Spartans, with various success, they, about the time of Creusæus, received a decisive defeat (Herodotus, Clio), which depriving them of the valuable territory of Thyrsa, affected their interest much, but operating on the high spirit of Grecian heroism, affected their sensibility more. They had hitherto, like most of the Greeks, adorned their long hair to encrease the gracefulness of manly beauty, and to render their appearance more terrible to their enemies. But in remembrance of this disaster, they shaved their heads, deprived the Argive women of their golden ornaments, and bound themselves by a dreadful imprecation never more to assume their wonted appearance until they had recovered possession of Thyrsa. Although they were not able to recover this territory from the Spartans, now the most potent state of Greece, the Argives continued to be the second power in the Peloponnesus. But having, from jealousy of the Spartans, declined to participate in the defence of Greece against Persia, the Argives fell into the disrepute which never fails to overtake those that from intemperate differences and Jephthah rivalry withold the efforts of patriotism, when required to repel an invading enemy. As defectors of the common cause, the Argives incurred the hatred and contempt of their public-spirited neighbours. Mycenæ, Epidauros and Tzæzænæ, which formed respectively the greatest strength and ornament of the Argive territory, threw off the puke of a capital which for allegiance did not afford protection, and other towns of less importance obeyed the summons to liberty and independence. The insurgents strengthened themselves by foreign alliance, and renounced the authority to which they had so long submitted. By division, intestine war, and the devastation of the province, they paid the price of their baseness or folly, and left to posterity an awful lesson of the impolicy of obstinacy and separation, where common interest demands energy and concert.

If the Argives suffered by insurrection when duty and interest called for activity, they did not rashly fall into the opposite extreme of embroiling themselves in the quarrels of their neighbours, when these were not likely to affect their interest or security. During the first years of the Peloponnesian war, they kept aloof from the contest, and employed themselves in repairing the evils of the late division; but finding the Spartans likely to attain a pre-eminence that must be dangerous if not fatal to neighbouring states, they formed a defensive confederacy, which taking its name from its chief promoters, was called the Argive alliance. Soon after, however, being convinced of the prudent principle of the confederation, they at the instance of Alcibiades the instigator, broke the amenity with the Spartans, and brought upon themselves the punishment of precipitate injustice. The Spartans taking the field, ravaged the country; internal tumult co-operated with foreign hostility in disturbing the unstable Argives, and compelled them to seek again in peace and justice the recovery of those blessings which they had lost by war and rapacity.

When the Spartans, by the complete discomfiture of Athens, became predominant over Greece, remote as well as adjacent, it would have been madness in the conterminous Argives to have questioned their supremacy, or to have provoked the anger of a power which could now overwhelm them in destruction. They therefore acquiesced in a superiority which their opposition could not have destroyed. But when the imperious influence of victorious Sparta excited general resentment, the Argives were among the first to join in a confederacy for reprefling the ambition of Sparta, and asserting the independence of Greece. The policy of Antalcidas procured the establishment of a peace, wherein, by ignomious sacrifices to the ambition of Persia, Sparta was able to retain a great part of her influence over her neighbours. Her exercise of her dominion, however, did not peculiarly affect Argos; and it was reformed for another state finally to humble the Spartan power. But the battle of Leuctra had no sooner relieved the Argives from their dread of the Spartans, than intestine disensions again broke forth.

The great defect of the Grecian republics was the want of
ARG

an efficient control, which should at once mingle liberty and order, and allowing to each chief and individual all the power that was necessary for promoting public and private good, should refrain both tyranny and licentiousness. Hence there were frequent contentions between the aristocratical and democratical parties, not rarely leading to sedition and confusion. The Athenians being the chief patrons of democracy, and the Spartans of aristocracy, the relative power of these parties, and other republics, was strongly affected by the preponderance of Athens, or of Sparta. Macedon being humiliated by Epieminondas, the influence of aristocracy was weakened throughout Greece; and the nobles in many places were slain or driven into exile. At Argos, more than two thousand of the aristocratical party were killed. The Argives now joined the Thebans against the Spartans, and were instrumental in raising Thebes to a pitch of power which might have been dangerous to the independence of Argos, and of all Greece, had not the death of their confederate general dried up the fource from which Theban prosperity and greatness flowed.

The Peloponnesus being now freed from fears of the Macedonians, the Thebans being in a flate of languor after their late and extraordinary efforts, and the Athenians immerced in pleasure and luxurious indulgence, Greece was for several years quiet, and the Argives are rarely mentioned in history. But Sparta having recovered a part of her former power, resumed her pretensions to the direction of the Peloponnesus. The Argives formed with Arcadia and Messenia a league for maintaining their respective independence: with fatal impolicy they called in Philip of Macedon, who overcame the Spartans. But a nominal auxiliary proved a real matter; the Argives now shared the fate of the other Grecian states, and became a dependency of Macedon. See Argos.

ARGONAUTA, in Conchology, the name of one of the Linnæan genera, the character of which is thus defined: animal a sepia olio; shell univalve, spiral, involuted, membranaceous, and containing only one cell. The species of this genus are few. Gymnicharchus five, viz. argo, vitræus, cymbium, coruscus, and arctica; which fcc.

ARGONAUTIC, in Ancient History, denotes something belonging to the Argonauts. The Argonautic expedition is one of the most memorable transactions of antiquity; and references to it are interpersed in most of the writings of the ancients. By the Greek writers, who have traced the complete histories of this event, we are informed that the intention of this armament was to bring back a golden fleece, which was detained by Æetes king of Colchis. It was the fleece of that ram on which Phrixus and Helle fled to avoid the anger of Io. Upon his arrival at Colchis, Phrixus sacrificed it to Mars, in whose temple it was suspended. This fable has been thus explained: Phrixus flying with his sister Helle from the rage of their stepmother Io, the daughter of Cadmus, went on board a ship, whose ensign was a golden ram, and failed to Colchis. Helle was drowned by the way in that sea, from which her name was called the Hellepont, now the Dardanelles. This, it is said, was the ground of the poetical fable, that a ram with a golden fleece swam away with them to Colchis; and that the Argonauts undertook their famous expedition in order to regain that fleece.

After an interval of some years, Pelias, king of Ioleus, commissioned Jason, son of his brother Æson, to go and recover this precious fleece. For this purpose a ship was built at Pagiæ, a city not far from mount Pelion in Thessaly. It was the first that was ever attempted; and the merit of the performance is ascribed to Argus, who was instructed by Minerva, or divine wisdom. This ship, called Argo, was built partly with some sacred timbers from the grave of Dedalus, father to Jupiter (Danaius); and on this account it is said to have been sacred, and to have given verbal responses; which history is beautifully described by Claudian, De Bello Getico, v. 16.

"Argos trabulis jaenat fulcile Minervam: Nunc narratae tantam vincit æraecula securi
Robora; sed, causa Tymniar Johs augus lacuo,
Arboré praexla tabulas animæque iacuæs.
"

As soon as this sacred machine was completed, a full band of heroes, the prime of their age and country, confounded together and engaged in this honourable enterprise. Among these Jason was the chief by whom the others were summoned and collected. Chiron, or, as others say, Musæus, framed for their use a delineation of the heavens, and contrived the first sphere, on which the stars were formed into afterlims for the benefit of the Argonauts, that they might be the better able to conduct themselves in their perilous voyage. The heroes being all assembled, waited for the rising of the Pleiades, at which season they set sail. The general account of their route is, that they coasted Macedonia, and proceeded to Thrace, where Heracles engaged with the Thracians, and is supposed to have also done service in several other places. They visited Lemnos and Cyzicus, and from thence came to the Bosphorus. Here were two rocks called the Cyncecus, and also the Symplegades, which used to clash together with a mighty noise, and intercept whatever was passing. The Argonauts let fly a dove, that they might discover by her fate if there were a possibility of escaping. The dove made its way, with some difficulty; and encouraged by this omen, the heroes pulled forward, and with the assistance of Minerva, escaped. After many adventures, which the poets have described in a manner wonderfully pleasing, they arrived at the Phæis, which was the chief river of Colchis. Immediately addressing Æetes, and informing him concerning the cause of their visit, they demanded a restitution of the fleece. The king was exasperated at their claim, and refused to give up the object in view, but upon such terms as seemed impracticable. Jason, however, accepted of the conditions; and after having engaged in many labours, and, by the help of Medea, footed a street of dragon which guarded the fleece, he at last brought off the prize. This being happily effected, he was received privately by his brother, and at the same time bringing away Medea, the king's daughter. As soon as Æetes was apprised of their flight, he fitted out some ships to pursue them, and arriving at the Thracian Bosphorus, took possession of that pass. The Argonauts, having their retreat prevented, returned by another rout, which writers have differently represented. The author of the Orphic Argonautics makes them pass up the Phasis towards the Mesotis, and from thence, through the heart of Europe, to the Cronian sea, or Baltic; and then to the British seas and the Atlantic; and afterwards, by Gades and the Mediterranean, home. Timagetius says, they proceeded northward to the same seas, by the Æther. Timeus traces their rout to the fountains of the Tanais, through the Pals Masotis; thence, through Scythia and Sarmatia, to the Cronian sea; and from thence, by the Atlantic, home. Hesiod and Antimachus conduct them by the Southern ocean to Libya, and thence over land to the Mediterranean. Heraceus Mela supposes that they went up the Phasis, and turning south over the great continent of Asia, arrived at the Indian ocean, and thence proceeded to the Nile in Egypt, whence they made their progress regularly home. Valerius Flaccus copies Apollonius Rhodius, and pursues their course up the Æther.
Ifer, and by an arm of that river to the Eridanus, and thence to the Rhone, and afterwards to Libya, Crete, and other places. Pindar conducted them by the Indian Ocean. Diodorus Siculus brings them back by the same way as they went out. Upon their arrival in Greece, they offered sacrifices to the gods, and consecrated their ship to Neptune.

Although the object of this expedition has been differently stated, and the account of it has been intermixed with many poetical fables, the reality of it has been generally admitted both by ancient and modern writers. Among the most eminent ancient writers who admitted it as an historical truth, were Herodotus, Diodorus, and Strabo, and with them every Grecian mythologist; and among the fathers, Celsus, Eusebius, and Syncellus. Among the moderns, the principal are, Scaliger and Petavius; and of our country, Archbishop Uther, Cumberland, Dr. Jackson, and Sir Isaac Newton. The learned Bryant (Anc. Mythol. vol. 2. p. 484, &c.) rejects the history of the Argonautic expedition as a Grecian fable. The Grecians, he says, have applied to themselves an ancient history to which they had no relation; and as the real purport of it was totally hid from them, they have, by their colouring and new-molding what they did not understand, run themselves into a thousand absurdities. He alleges the incongruities and contradictions of the different writers, who have given an account of this expedition. They differ as to the number of persons concerned in it; and yet, allowing the highest estimate, they were too few to have achieved what they are said to have performed. After many adventures, and long migrations in different parts, the Argonauts are said to have returned to Iolcus, and to have accomplished all their peregrinations in four, or, as some state it, in two months. “Is it possible,” says Bryant, “for fifty persons, or ten times fifty, to have performed such mighty operations in this term, or indeed at any rate to have performed them? They are said to have built temples, founded cities, and to have passed over vast continents, and through seas unknown; and all this in an open boat, which they dragged over mountains, and often carried for leagues upon their shoulders.” Besides, the æra of the expedition cannot be settled without running into many difficulties from the generality and ages of the persons spoken of. Some make the event ninety years, others seventy-nine, others only forty years before the æra of Troy. Writers have also differed as to the time whither the expedition was directed, the builder of the ship, and various other circumstances minutely recited by this learned writer. According to him, the mythology and also the rite of Greece were borrowed from Egypt; and they were founded upon ancient histories, which had been transmitted in hieroglyphical representations. These by length of time became obscure; and the sign was taken for the reality, and accordingly explained. In the account of Argo, he says, we have undeniably the history of a sacred ship, the first that was ever constructed. This was no other than the ark, called by the Greeks “Argus” and “Arcas,” originally framed by divine wisdom. As the history of the Argo related to an ancient event which the Egyptians commemorated with great reverence, the delineation of it on the sphere was intended as a lasting memorial of a wonderful deliverance; on which account one of the brightest stars in the southern hemisphere is represented upon the rudder of the ship. The star was called by the Egyptians “Canopus,” which was one of the titles of their chief deity, and regarded under this denomination as the particular god of mariners. The star of this deity was put upon the rudder of the Argo to shew, that providence was its guide. According to this writer, all the mistakes in this curious piece of mythology arose from hence, that the Arkites, who came into Greece, settled in many parts, but especially in Argolis and Thessalia, where they introduced their rites and worship; and the several circumstances of the Argonautic history afford wonderful evidence of the Arkites and their rites. The Grecians took the history to themselves; and in conformance of this assumption, wherever they heard that any people under the title of Arcades, or Arkai, settled, they supposed that there Argo had been. Hence they made it to pass not only through the most distant seas, but over hills and mountains, and through the mid of both Europe and Asia. They sent their heroes to Colchis, merely because some of their family had settled there. Jason, says Bryant, who was esteemed the chief in all the Argonautic adventures, was a feigned personage made out of a fancied title of the Arkite god, the same as Arcas, Argus, Inachus, and Prometheus; and the temples said to be built by him were such as were erected to his honour. Many of these were in Armenia, the region of the most ancient Minyae, who were the worshippers of the lunar deity Menes; and particularly in the vicinity of Mount Ida, where the ark really rested, and where the memorials of the deluge were religiously observed.

Among those writers who have allowed the reality of the Argonautic expedition, very different opinions have been entertained concerning its object and design. Diodorus Siculus supposes that the golden fleece denoted the skin of a sheep sacrificed by Phrixus, and guarded with care, from an apprehension that, according to an ancient oracle, the king of Colchis would be killed by the person who succeeded in taking it away. Strabo and Justin supposed that Colchis, a country lying between the Euxine sea and Iberia, and now called Mingrelia, had considerable mines of gold, which gave rise to the fable of the fleece. These mines were apprehended by certain mythologists to have been contiguous to some of those torrents which fall from the neighbourhood of mount Caucasus, and to have brought down with them great quantities of gold dust, which the inhabitants saved by letting fleeces of wool across the narrow passages of those currents. This account was afterwards diversified by the fabulous persons and their manner and embellished with the stories of dragons, brazen bulls, dreadful seas, dangerous passages, and many such perils and innumerable difficulties as commonly attend the too eager search after that pernicious, though so much desired, metal. Pliny and Varro ascribe this voyage to the wish of some Greek merchants to get possession of the fine wool of Colchis. The account which Suicides gives of the golden fleece, namely, that it was a parchment book made of sheep’s skin, and in which was written the whole secret of tranfmuting all metals into gold, scarcely deserves mention.

Sir Isaac Newton, in his Chronology, (apud oper. tom. v. p. 79. ed. Harl.) thinks that the Argonautic expedition was an embassy sent by the Greeks, during the interline divisions of Egypt, in the reign of Amemophis or Memnon, to permeate the nations upon the seas-coats of the Euxine and Mediterranean seas, to take the opportunity of Amemophis’s stay in Ethiopia, for revolting from Egypt, shaking off the yoke and setting up for themselves, as the Libyans, Ethiopians, and Jews had done before; and fetching the golden fleece was only a pretence to cover their true design.

The following judicious and satisfactory account of the Argonautic expedition, and its effects, is given by Dr. Gil- lies, in his “History of Greece.” The northern districts of Thessaly being peculiarly exposed to the dangerous fury of invaders, the petty princes of that province entered into a confe-
confederacy for their mutual defence. They assembled in spring and autumn at Thermopylae, a place afterwards ill-fated, and then governed by Amphictyon, a defendant of Delphi, whose name is immortalized in the Amphictyonic council. The advantages which the confederates derived from this measure were soon perceived by their neighbours. The central states gradually ascended to their alliance; and, about the middle of the fourteenth century before Chrilt, Acricius king of Argos, and other princes of the Peloponnesus, were allowed to share the benefits and security of this useful association.

After this event, the Amphictyons appear to have long confined themselves to the original purpose of their institution. The states, whose measures were directed by this assembly, found sufficient occupation in defending their own territories; and near a century elapsed, before they undertook, by common consent, any distant expedition. But it was not to be expected that their relics activity could be always exhausted in defensive war. The establishment of the Amphictyons brought together the chiefs most distinguished by birth and bravery. Glory and emulation prompted them to arms, and revenge directed those arms against the barbarians. Jafon, Admetus, and other chieftains of Thessaly, having equipped a small fleet in the neighbouring harbour of Eolus, and particularly the ship Argo, of superior size and construction to any before known, were animated with a desire to visit foreign lands; to plant colonies in those parts of them that appeared most delightful and to extend on their inhabitants the benefits which Greece had afforded strangers. The princes of the north having proclaimed this spirited design over the central and southern provinces, the standard of enterprise and glory was speedily surrounded by the flower of the Grecian youth, who eagerly embraced this honourable opportunity to signalize their manly valour. Eolus, Tydeus, Thesius, and, in general, the fathers of those heroic chieftains, who, in the succeeding age, thone with distinguished virtue in the plains of Troy, are numbered among the leaders of the Argonauts. They were accompanied by the chosen warriors, and by the venerable prophets, of their respective tribes; by an Eteoclyus, the admired father of the healing art, and by the divine Orpheus, whose sublime genius was worthy to celebrate the amazing feries of their adventures.

Thus, these adventures, however, have been too much adorned by the energies of poetry, to be the proper subjects of historical composition. The design of the Argonauts is veiled under the allegorical, or at least doubtful, phrase, "of carrying off the golden fleece, which, though easily explained, if we admit the report that the inhabitants of the Euboean banks of the Euxine extended fleeces of wool, in order to collect the golden particles which were carried down by the torrents from Mount Caucasus, is yet described in such various language by ancient writers, that almost every modern who examines the subject, thinks himself entitled to offer, by way of explanation, some new conjecture of his own. But, in opposition to the most approved of these conjectures, we may venture to affirm, that the voyage to Colchis was not undertaken with a view to establish extensive plans of commerce, or to search for mines of gold, far less to learn the imaginary art of converting other substances into that precious metal; all such motives supposing a degree of speculation and refinement unknown in that age to the gallant but uninstructed youth of Thessaly. The real object of the expedition may be discovered by its consequences. The Argonauts fought, conquered, and plundered; they settled a colony on the shores of the Euxine; and, carried into Greece a daughter of the king of Colchis, the celebrated Medea, a princess of Egyptian extraction, whose crimes and enchantments are condemned to eternal infamy in the immortal lines of Euripides.

Notwithstanding many romantic fictions that disfigure the story of the Argonauts, their undertaking appears to have been attended with a considerable and a happy effect on the manners and character of the Greeks. From the era of this celebrated expedition, we may discover not only a more daring and more enlarged spirit of enterprise, but a more decisive and rapid progress towards civilization and humanity. The fallen and uncouth chiefs, whose acquaintance with each other mostly arose from acts of mutual hostility, hitherto gave full scope to the fantastic passions which characterize barbarians. Strength and courage were the only qualities which they admired; they fought and plundered at the head of their respective tribes, while the inhabitants of the neighbouring districts were regarded as fit objects only to excite their rage, and gratify their rapacity. But these gloomy warriors, having exerted their joint valor in a remote expedition, learned the necessity of acquiring more amiable virtues, as well as of adopting more liberal notions of the public interest, if they pretended to defend the interests of their equals. Military courage and address might alone procure them the respect of their immediate followers, since the safety of the little community often depended on the warlike abilities of the chieftain; but when several tribes had combined in a common enterprise, there was less dependence on the proves of any single leader. Emulation and interest naturally rendered all these leaders as jealous of each other, as of kings of the public applause; and, in order to acquire this applause, it was necessary to brighten the luster of martial spirit by the more valuable virtues of justice and humanity.

The Argonautic expedition is one of the greatest epochs or periods of history, which has Newton's endeavours to fettle, and from thence to rectify the ancient chronology. This he shews, by several authorities, to have been one generation, or about thirty years, earlier than the taking of Troy, and about forty years later than the death of Solomon. Blair refers this expedition to the year 1263 before Chrilt, or 79 years before the taking of Troy. Playfair places it 44 or 42 years before this event, or in the year 1225 before Chrilt. For an account of the Newtonian system, of the Argonauts in its favour, and the objections that have been urged against it; see Chronology.

ARGONAUTICA, in Literary History, denotes poems on the subject and expedition of the Argonauts. We have the Argonautics of Orpheus, in epic verse, published by H. Stephens; the Argonautica of Valerius Flaccus, in eight books of Latin heroic, in imitation of Apollonius, with respect to which Burman observes, that the imitator has often surpassed the original; the Argonautics of Apollonius Rhodius, an heroic poem, consisting of four books, "opus," as Quinilius calls it, "non contemendum." ARGONAUTS, in Antiquity, a company of fifty-one, according to Valerius Flaccus, or, according to Apollonius Rhodius, forty-four heroes, who embarked along with Jafon in the ship Argo, for Colchis, with a design to obtain a golden fleece.

Hercules, Thessus, Cadmus, Orpheus, &c. were of the number of the Argonauts.

Argonauts of St. Nicholas, was the name of a military order, instituted by Charles III. king of Naples, in the year 1382, for the advancement of navigation, or, as some fay, merely for preferring amity among the nobles.

They wore a collar of shells, included in a silver crescent, whence hung a ship, with this device, "Non credo tempori,"
A R G

puri," "I do not trust time." Hence these Argonaut knights came to be called *knights of the shell*. They received the order of St. Basil archbishop of Naples; and held their assemblies in the church of St. Nicholas, their patron.

ARGONNE, in Geography, a country of France, before the revolution, about 20 leagues in length, between the Meuse, the Marne, and the Aine; of which the capital was St. Menehould.

ARGOON. See Argon.

ARGOPHYLLUM, in Botany (Ar<sub>2</sub>g<sub>0</sub> and *<sub>Ph</sub>*<sub>0</sub>l<sub>0</sub>l<sub>0</sub>um, white-leaf; the leaves being of a glossy whitish tinge.). Forster, t. 15, Supp. p. 22. Schreb. 393. Juss. 161. Clas. *Penda<sub>n</sub>tr<sub>a</sub> monogynia*. Nat. Ord. Eric<sub>e</sub>s. Juss. Gen. Char. Col. is small, foliolute, quinquefolia; divisions sharp. Cor. petals five, lanceolate, spreading, three times greater than the calyx; stamens five, angulated, pyramidal, open at the top, consisting of many converging papillae, connate at the base. 

*Stam.* filaments five, subulate, inserted into the receptacle, shorter than the stamens; anthers ovate. *Fil.* germ turbinated, flattened at the bottom to the calyx, flat above; style filiform; stigma globose. *Cap.* capsule hemispherical, flat above, three-celled, opening into three parts. Seeds, numerous, globular, porous.


Species 1. *A. n<sub>it</sub>*<sub>d</sub><sub>um</sub>, perennial, stems, petioles, leaves underneather, panicles, calyxes, shining with a silky down; leaves alternate, petiole, ovate, pointed at both ends, entire; peduncles axillary, solitary, elongated, terminating in a panicle. Found in New Caledonia.

ARGOS, αργος, from αργος, a negativc, and ωρος, work, or b<sub>l</sub>if<sub>n</sub>ē<sub>d</sub>s; as if it were *<wbr/><wbr/>αργω<sub>ν</sub>*. So *αργός* <wbr/>αργων; is fiber not worked; *<wbr/>αργων* <wbr/>ινορρ<sub>π</sub>η<sub>ρ</sub>ας, in Hippocrates, is rude woody, not prepared, but f<sub>u</sub>ch as it is to the floor.

ARGOS, in Ancient Geography, a name given to several cities; and more particularly to the capital of a small kingdom of Greece, denominate ARGOLI. It was also called Argi, and Inachus, from its founder. It is said to have been built by a colony of Argives, who migrated from Egypt under the command of Inachus, and settled in Greece. Inachus was slain the son of the ocean, because his origin was not known, and he had come by sea into Greece. Before his arrival the inhabitants were rude and barbarous. Thence he united and civilized, and instructed in various arts. His son Phoroness invested the laws of government; and, on that account, he has been called the first king in Argos, the first of men, and the father of mortals. The city was seated at some distance from the sea, on the river Inachus, in a spacious, rich, and well-watered plain, from which it is supposed to have derived its name. To this purpose Strabo says *(l. viii. p. 170, &c.)* that Argos is a Macedonian or Thessalian town, signifying a plain or champaign country, and thus it is described by Homer. Hence it has been concluded that they are identical, who have represented this city and its territory as dry and barren, and that they have misunderstood the epithet of "thirty," ascribed to it by the poet; which, it is conceived, should have been translated "delightful," because it was well watered by the Inachus, and by several other rivulets and springs. It was also distinguished by the epithet "hippobotos," from the goodness of its adjacent pastures, in which Neptune is said to have fed his horses, or perhaps from the excellent breed of horses which this territory produced. The epoch of its foundation is referred to the year 1080 before the first Olympiad, or 1856 b. C. before Christ; and it lost its distinction as the capital of the kingdom after the reign of Acrisius, or about the year 1344 before Christ, when the seat of government was transferred to Mycenae. Upon the arrival of the Heraclidae, and the division of the peninsula into three kingdoms, about the year 1104, Argos recovered the rank which it had lost. Strabo speaks of Argos as the principal city of the Peloponnesus, next to Sparta. It was adorned by a number of magnificent edifices and statuary. The most ancient of these edifices was the temple of the Lycian Apollo, erected to this god by Danaus; and in this temple was the statue of Apollo by Attalus the Athenian, that of Biron with a bull upon his back, one of Mercury by Epinus, and others dedicated to Apollo, Jupiter, and Diana. Over against this temple was that of Jupiter Neptunus, with the statue of the deity in bronze by Lygippus; the temple of Phoroneus, whose anniversary was celebrated by the Argives; the temple of Fortune, and another dedicated to the Scyths, &c. &c. Here were also the statues of the heroes who took Thebes, and the cenotaph of the Argians who perished at the siege of Troy. The celebrated citadel, called "Laifax," was seated on an eminence to the north-west of the city. Argos was also much enriched by its trade, and particularly by the fine race of horses that were bred about its territory. Bryant refers the origin of Argos, of the Argives, and also of the Argonauts, to a colony of Arkites, who came from Egypt and diffused themselves widely through various parts of Greece. Anal. Anc. Mythol. vol. ii. p. 526. The medals of this city were gold, silver, and bronze; and their ordinary type was a wolf, which was the symbol of the Argives. There were also imperial Greek medals struck in this city, in honour of Adrian, Antonine, and Septimius Severus. Paulinia, Domna, Geta, Elagabalus, Marcus Aurelius, Piaultilla, Galen, and the younger Valerian. A small village, called *Argos* still subsists on the ruins of the ancient Argus.

ARGOS, a town of the island of Nisyros, one of the Cyclades. Steph. Byz.—Allo, a town of Asia, in Cilicia, called in the time of Steph. Byz. Argopolis, situated near Mount Taurus.—Allo, a town of Asia Minor, in Caria. Steph. Byz.—Allo, a place in the island of Cyprus, famous for the temple of Apollo Erythius, where Venus found the body of Adonis.

ARGOS Amphilochium, a town situated in the Ambrian gulf, two stadia, according to Polybius, and according to Livy twenty-two miles, from the city of Ambria. Thucydides, who represents it as a maritime town, ascribes its origin to Amphilochus, the son of Amphirous, some years after the war of Troy; others say that it was founded by Alcmeon, in honourable remembrance of the friendship that subsisted between him and his brother Amphilochus.

ARGOS Hippium. See ARPI.

ARGOS Orphium, a town of the O牧场ad, a country of Epirus, built by Oicles; where he made his escape, after having killed his mother. Strabo.

ARGOS, or ARGAI, in Geography, a mean town of Turkey, in the Morea on the bay Napolitani and the river Najo or Inachus; N.N.W. from cape Angelo. The Turks took it from the Venetians, under Mahomet II.; twenty miles south of Corinth. N. lat. 37° 36'. E. long. 23° 5'.

ARGOS, a small town of Africa, in the kingdom of Dongola in Abyssinia, on the eastern bank of the Nile, through which the caravans that carry soap and linen pass, and where they pay a duty to the dominion of the place.

ARGOSTOLI, a sea-port of the island of Cephalonia, opposite to Albania, the belt in the island, at the distance of five miles from the fortress.

ARGOUGES, a town of France, in the department of the Channel, four leagues south of Avranche.
ARGOW, ARGAU, or ARGovie, a country of Switzerland, situated on the river Aar, from which it derives its name, and forming the north-eastern part of the canton of Berne. It is divided into Upper and Lower Argow, which are separated from each other by the small town of Arburg. The upper Argow extends to the Thun, and the lower to the confluence of the Aar with the Rhine. By the division of 1798, Argow, the chief town of which is Aran, was made a distinct department or canton; but by the constitution of 1801, Argovie was reunited with Baden and with the upper part of the Frickthal, and thus formed into the fourteenth department or canton, and five persons were appointed to represent it in the diet. Argow is a very fertile country, well watered by rivers which flow into it from the canton of Luzerne, abounds with excellent pastures, and produces alo corn and wine. The industry of the inhabitants in the Lower Argow compensates for the less fertility of the soil. The reformed religion is the general profession of its inhabitants. See Berne.

ARGU, a town of Syria, five miles south-east of Damacus.

ARGUEDAS, a town of Spain, in Navarre, 23 leagues from Tudela.

ARGUIL, a town of France, in the department of the Lower Seine, chief place of a canton, in the district of Neufchatel, six leagues north-east of Rouen. The place contains 349, and the canton 6,638 inhabitants: the territory includes 215 kilometres, and 22 communes.

ARGUENON, a river of France in the late province of Bretagne, which has its source near Jugon, and runs into the sea near St. Malo.


ARGULER, in Geography, a town on the south point of Porto Galiero, towards the north-western corner of the island of Sardinia, in the Mediterranean, nearly east from Cape Caffa.

ARGUIN, an island of Africa, in the Atlantic, situated on the northern part of the coast of Senegambia, and in a gulf of the same name formed by Cape Blanco, about ten leagues from it. N lat. 20° 20'. W. long 19° 22'. To the west of this island are two other long small islands, and in the bay, on the north side, are several shoals from the main. There is also a little island by the point called Terra Gorda, and more southwards another called Monzora. Arguin was probably the island, which was known to the ancients under the name of "Cerne." It became the chief station of the Carthaginians, in the voyage of Hanno, along that coast; and M. De Bougainville contends, that the caltrons found there are monuments of the Carthaginian power and ingenuity. Although Arguin is scarcely two miles in length, it has been for nearly a century, an object of contest to the Portuguese, Dutch, English, and French; but at length the French, in 1725, demolished the fort, and it has not been since rebuilt by any European power.

ARGULUS, in Entomology, one of the genera or divisions of Müller, in his arrangement of Monoccelli. Gmelin adopts it as a subdivision of the genus, with this definition: eves placed beneath: antennae two; legs from four to eight. This subdivision includes the three following species, Charon, Delphinius, and Armatig. It is remarkable that the first kind has four legs, the second eight, and the third six.

ARGUMENT, in Rhetoric, is some reason or series of reasoning, by which we establish the proof, or show the probability of some given proposition. Logicians, somewhat more scientifically, define argument, a medium, from whose connexion with two extremes, the connexion of the two extremes themselves is inferred. To illustrate this definition by an example; let it be inquired, "whether virtue is to be loved?" The agreement between virtue and love might be found by comparing each of them separately with happiness, as a common measure to both. For since the idea of happiness agrees to that of love, and the idea of virtue to that of happiness, it follows that the ideas of virtue and love agree to one another; and therefore it may be affirmed, "that virtue is to be loved." But, on the contrary, because the idea of misery disagrees with the idea of love, but the idea of vice agrees to that of misery, the two ideas of vice and love must concomitantly disagree with one another; and therefore it would be false to affirm, "that vice is to be loved." The third thing logicians call the "medium" or "middle term," because it does as it were connect two extremes, that is, both parts of a proposition. But rhetoricians call it an "argument," because it is applied to what was before proposed as to become the instrument of procuring our assent to it. Ward's Oratory, vol. i. p. 43. See Topics.

Arguments are termed grammatical, logical, physical, metaphysical, moral, mechanical, theological, &c. according to the art, science, or subject, from whence the middle term is borrowed. Thus, if we prove that no man should steal from his neighbour because the scripture forbids it, this is a "theological argument;" if we prove it from the law of the land, it is "political;" but if we prove it from the principles of reason and equity, the argument is "moral." Arguments are either certain and evident, or doubtful and merely probable. "Probable arguments," are those whose conclusions are proved from some probable medium. "Evident and certain arguments," are those which prove their conclusions by clear and uncontroverted principles; these are called demonstrative. In reasoning, Mr. Locke observes, that men ordinarily use four sorts of arguments. The first is to allege the opinion of men, whole parts and learning, eminence, power, or some other cause, have gained a name, and settled their reputation in the common esteem with some kind of authority: this may be called "argumentum ad verecundiam." Secondly, another way is to require the adveresaries to admit what is alleged, as a proof; or to align a better: this he calls "argumentum ad ignorantiam." A third way, is to press a man with consequences, drawn from his own principles or concessions: this is known by the name of "argumentum ad hominem." Fourthly, the using of proofs, drawn from any of the foundations of knowledge or probability: this he calls "argumentum ad judicium;" and observes, that it is the only one of all the four that brings true instruction with it, and advances us in our way to knowledge. For. 1. it argues not another man's opinion to be right, because I, out of respect, or any other consideration but that of conviction, will not contradict him. 2. It proves not another man to be in the right way, nor that I ought to take the same with him, because I know not a better. 3. Nor does it follow, that another man is in the right way, because he has shown me that I am in the wrong: this may disprove me perhaps for the reception of truth, but helps me not to it. That must come from proofs and arguments, and light arisent from the nature of things themselves: not from any shamsmadnec5s, ignorance, or error. See Reason and Reasoning.

Bedeftheke, there are other arguments enumerated by different writers, as the "argumentum ab amore," which is used to engage
A computed theory of the "Y" argument in the context of the planet's argument, it is
advocated by several advocates for Christianity, as a means
of establishing a natural force. The statement has a different on this argument

The argument for the "Y" involves the following points:

1. The argument for the "Y" is divided into two parts: the

2. The first part of the argument for the "Y" is based on the

3. The second part of the argument for the "Y" is based on the

4. The argument for the "Y" is divided into two parts: the

5. The first part of the argument for the "Y" is based on the

6. The second part of the argument for the "Y" is based on the

The argument for the "Y" is divided into two parts: the

The first part of the argument for the "Y" is based on the

The second part of the argument for the "Y" is based on the
ARG

to one another, so that a conclusion may be drawn from
them. See Euthyme, Proposilion, Ratioscillation,
Sorites, Sylogism, &c.

ARGUS, or Argo, in Geography, a river of Asia,
which rises in a lake of Chinefe Tartary, called "Coloum
Nor," or "Sun" Dalai," situated in N. lat. 49°, E. long.
110° 14', and joins the Amaur or Amoor, in N. lat. 53°.
E. long. 121° 14'. This river separates Ruflia from Chinefe
Tartary, according to the treaty of Nertchinsk in 1728.
It has a peculiar fility, and near its banks are mines of lead
and fliver.

ARGUS, or Argo, is also a mountain of Independent
Tartary, forming the chain with the Kara Tau, though
broken by the interfeclion of a river.

ARGUNA, a town on the coaft of Africa, on the river
Benin or Forntna, thirlean leagues from Benin.

ARGUNKOI, in Geography, a town of Siberia, feated
on the Argun, near the confines of China, one hundred
and thirty miles eft of Nertchinsk. N. lat. 50° 50'. E. long.
120° 14'. This is the farthell fort of the Ruffians towards
the eft, on the Mongoliafiers, and was firft built on
the eft bank of the Argun, in 1682, for the convenience
of levyng the tribute payable by the Tungufians, who
habited there; and it was rebuilt in 1699 on the west
side of that river. A confiderable trade is carried on from
this garrifoned town with the Mongufes. The country round
it is very fertile and the air, though cold, very healthy.
The terriority of Argunfko is often visited with flight
flocks of an earthquake, in the spring or beginning of
winter. The Chinefs erect new pillars every year, on the eft
bank of the Argun, to mark the limits of their frontiers.

ARGURA or ARGISSA, in Ancient Geography, a town
of Greece, in Thelfaly, fituate upon the Penæux, forty fiddia
from Atrax. Strabo.

ARGUS CAMPUS, a plain in the terriority of Mantinea.
Paufanias.

ARGUS, in Fabulous History, is faid to have had an hun-
dred eyes, fome of which were open, whilft the others were
clofed. He was called Panteris, panoptes, becaufe he faw
every thing. On this account Juno intritted him with the
wifdom of Ioo; but Jupiter, having compaffion on Ioo in
felf confinement, commiffioned Mercury to charm Argus to
fleep with his flute, and to feal his eyes with his caduceus,
and then to cut off his head. Juno, in recompence of his
fidelity, took all the eyes of Argus, and deftroyed them and
fixed them to the wings of the peacock; and, as the fable adds,
transformed Argus into this bird. Macedon (Saturn. f. 19.)
gives this fable an aternomical origin: he fays, that Argus
represents the celestial sphere, on which are difperfed a thou-
tand fars; and that Mercury is the fun, that makes them
diffappear by its brillencc.
But when it was known that the
Mercury of the Greeks was the Anubis of the Egyptian
ians, and that Anubis represented the horizon, the applica-
tion of the fable was no lefs obvious, as Mercury caufed
Argus to fleep, and clofed his hundred eyes, as the horizon
evry day veiled the fars of the celestial fphere.

ARGUS, in Conchology, a species of Mur€€€, found in
India. The shell is gibbous, with transverse tuberculated
ribs; brown, obscurely falcated, and white within; aper-
ture ovate. Gmelin, &c. Obs. There are three or more
fuppofed varieties of this species, one of which is believed
to be the shell figured in Martin's Universal Conchology
under the name of Flag-Buccinum; and which is found in
the Friendly and Society iflands.

ARGUS, a species of Cypræa, that inhabits the Indian
and Atlantic ocean. This shell is fearly turbinated, fome-
what cylindrical, and sprinkled with ocalfed marks; four
brown spots beneath. Gmelin. It is called argus by Rup-
mius, argus magus by Argenville, and argus curry by Eu-
ghil collectors. The length is about four inches; it is rather
narrow, and of a grey or yellowish colour above, with three
brown bands; the ocalfed marks are fome times connected;
and it is alfo remarkable that the spots on one fide, beneath
are larger than the other; the lips are ftraw-colour, and the
tooth brown.

ARGUS minor, the name given by Argenville to the shell
called by Linnaeus and Gmelin Cypræa ebravia; which
fhee.

ARGUS, in Entomology, a species of Cureuli, decribed
by Sparrman in the Stockholm Transactions for 1785, as
a native of the Cape of Good Hope. It is downy; head and
anterior margin of the thorax dotted with grey and white;
wing-cafes with elevated frite, and both spotted and dotted
with white and grey. Gmelin.

ARGUS, a species of Cinex (Scurtallus, Gmel.) It is
black, dotted with numerous occil lar fulvous spots. Fabr.
and Gmel. This creature inhabits Surinam, and is about
the fize of Cinex Fabrict; the under-fide is yellow,
varied with black.

ARGUS, a species of Papilio, (Phb. rural. Gmel.) The
wings are deftilute of tails, and blue; beneath, a ferrugin-
ous border on the posterior pair, with blue filvered ocalfed
spots. Gmelin, &c. Obs. This charafter cannot be confi-
dered unexceptionable, since it agrees only with the male
infet; the female is dark brown, and blufh only at the base
of the upper surface. The larva from which it is produced
is green, with a brown line along the back; and the head
and fore-legs black.

ARGUS, a moftingular species of Phalaena, (Bombyx
Att. Gmelin,) in which the posterior wings are furchal
with each a tail, that is more than thrice the length of the
tail of the infet. The specific charafter is as folows:

 Wings fided, pale ferruginous, with numerous occil lar
transfarent spots; and tails very long. This is phalaena brachyura
of Cramer; and found in Sierra Leona. A femewhat ana-
logous species, being furchal with fimilar tails, has been
recently difcovered in the interior of Africa.

ARGUS, in Ichthyology, a species of Pleuronectes,
that inhabits the seas about the Antilles. The body is variegated
and the tail rounded. Bloch and Gmelin. To this conci-
pecal character of the species may be added, that it is white
with yellow spots, which are dotted with brown, and encircled
each with a blue ring; the other parts are also dotted with
brown, and covered with fott fcales; the head is broad; the
eyes are unequal, and rather at a distance; the pupil blue;
the iris white and brown; the lateral line bending in the
middle, above the pectoral fin; the fins spotted with blue;
the membrane yellowish; rays brown; dorsal fin extending
from the nolirls to the tail. It has feventy-nine rays in the
dorsal fin, pecoral ten, ventral eight, anal fifty-nine, and in
the tail seventeen.

ARGUS, a species of Chaetodon, called by Renard
Jean Tayci, and by Valenf Cocatoca Bahintang. It has eeven
fpines in the dorsal fin; the body is entirely dotted with
black; and the tail is entire. Gmelin, &c. The body of
this fih is nearly square; and the fides are spotted and varied
with brown; above it is violet, beneath white; the iris of
the eye is golden; jaws equal; gill-covers large; the mem-
brane looke: the lateral line is arcuated; went nearly in the
middle of the body; fins short and yellow; and four fpines
before the anal fin. This species is found in fresh waters
and swamps, in India; lives on infecls; and the flsh is
fapid.

ARGUS, in Ornithology, a species of Phalisanus, that
habitates
inhabits China and Chinese Tartary; and may be well esteemed one of the most elegant of the feathered race. It was first introduced to the notice of the English naturalist through the medium of the Philosophical Transactions, under the name of Argus or Lanner: it next appeared in the London Magazine for 1766, and Gentleman's Magazine for 1768; and, at length was very completely described by Dr. Latham in his General Synopsis of Birds, published nearly twenty years ago. Still it is rare in cabinets of Natural History; though on the credit of some respectable and faithful writers, it is far from being an uncommon bird in its native country. There is at present a magnificent specimen of it in the Leverian Museum.

From Dr. Latham we learn, that this bird is common in the woods of Sumatra, as well as those of China; and that it is there called Coo-oo. Hitherto every attempt to keep it alive in a state of captivity for a considerable length of time, has proved ineffectual; it has been known to live for about a month after being taken from the woods, but never longer. One circumstance is very remarkable: it has a faint antipathetic disposition, and remains perfectly inactive in the open day; and, on the contrary, when put into a dark place seems easy, and sometimes makes its note or call which corresponds with its name Coo-oo; it is rather plaintive, and not harsh like that of a peacock.

The size is that of the male turkey; the bill, like that of the common pheasant, and of a pale yellow colour; the fore part of the head and beginning of the throat is covered with a granulated skin, of a fine scarlet colour; the irides are orange; round the eye the skin is dusky, and it has a kind of whisker on each side of the lower jaw; the top and hind part of the head and neck, is changeable blue, with a forked crest on the former; the lower part of the neck, back, and wing coverts, dusky, marked irregularly and transversely with reddish brown: the nine outer quills are yellowish-brown, marked with small dusky spots as big as twos on the outer, and smaller spots of white on the inner webs. The eleven remaining quills, dark brown, marked with round and oblong spots on both webs; and on the outer, near the shafts, a row of large eyes has a twelwe to fifteen in number, that is, an inch in diameter, somewhat resembling those on a peacock's train; the throat, breast, back, and upper tail-coverts dull orange, marked with round dusky spots; the tail consists of fourteen feathers, the two middle ones are three feet in length, the next eighteen inches, and thence they gradually shorten to the outer ones which are twelve inches only in length; the colour dusky brown, dotted with white; and the two middle ones have round white spots encircled with black on the outer, and brown irregular ones surrounded with dusky on the inner webs; the lower belly and vent dusky, irregularly mixed with brown; the legs, like those of a turkey, and of a greenish ash colour. Vide Lath. Gen. Syn.

We must not omit observing that the description of this species by Dr. Latham, was partly taken from a drawing sent over with a specimen of the bird; both the head and legs were wanting in this specimen, and were supplied from the painted figure; in this figure the legs have no spurs; but in a drawing, done by Mr. Edwards, they are furnished with a spur like that of a cock.

Its specific character, according to Gmelin, &c, is thus defined; pale yellow, dotted (or spotted) with black; face red; hind part of the head crested, and blue. Buffon calls it L'Argus, ou le Lanner.

Argus, in Zoology, a species of Coluber introduced by Linnaeus, and retained by Gmelin, in the Systema Nature, on the authority of Seba; but as the specific characters assign'd to the serpents by these authors are uniformly taken from the number of scuta, and signa; which, in this instance, they were unable to ascertain, it unavoidably stands without any character by which the species may be distinguished. A general description is indeed added, yet, if either writers are to be depended on, it is not very remarkable for its accuracy: above, smooth brown, and somewhat reticulated; scales palest in the duff; beneath, tesselated: the back of the head likewise is biled and gibbous. Dr. Shaw gives a specific character to this creature, which is taken from the colours, form, and situation of the spots in these words: chinnut-brown, yellow beneath, and banded above by transverse rows of ocellated red spots. Gen. Zonl.

This is a large species, measuring according to Seba above five feet in length, and is of a moderate thickness. The head is large, flatish, and covered with small scales in front; teeth large and strong; and the ocellated red spots on the body are each surrounded by a white iris, which is encircled with red. The tail is moderately slender, tapering to a point, and apparently about a foot in length. It is a native of Arabia, and is supposed from the appearance of the head to be a poisonous species.

ARGUTIAE, in Rhettic, witty and acute sayings, which commonly signify something farther than what their mere words at first sight seem to import. Writers on rhetoric speak of divers species of argutia vix.

Argutiae ab aliquo, when something is said, which seems repugnant either to the nature and property of a thing, or to common custom, the laws, &c. and yet is really consistent therewith; or when something is given as a reason of another, which yet is not the reason of it. For instance, "fi Cainis nihil didicisset, erravit minus:" again, "Aurem hoc fscularum eis, quia plurimum jam auro honos venit."

Argutiae ab alius, those wherein allusion is made to some history, fable, sentence, proverb, or the like; e.g. "multo umbram captant & carrum animatum."

Argutiae a comparatione, when two things are compared together, which yet at first sight appear very different from each other, but so as to make a pretty kind of simile, or allegorium; e.g. "Par eft pauper ill cupris principe omnia habenti."

Argutiae a repugnabatur, when two things meet in a subject, which yet regularly cannot be therein; or when two things are opposed to each other, yet the epithet of the one is attributed to the other; e.g. "Dum tacent clamant."

ARGUZIA, in Botany. See MESSERSCHMIDT. ARGY, in Geography, a town of France, in the department of the Indre, and chief place of a canton, in the district of Chatillon for Indre, three and a half leagues east of Chatillon.

ARGYLE, a township of America, in Washington County and State of New York, on the eft bank of Hudson river, containing 2,341 inhabitants, inclusive of fourteen slaves. In the late census of 1796, there appeared to be 404 electors.—Argyle is also a township of Shetburne County in Nova Scotia, settled by Acadians and Scots.

ARGYLESHIRE, or ARGATHIA, in Scotland, which together with Perthshire and the Wetheren Islands, is said to have constituted the ancient kingdom of the Scots, while the rest of Caledonia was subjected to the Picts and Romans, comprehends Kintyre, Knapdale, Argyle Proper, Cowal, and Lorne. It is bounded on the south by the Irish sea and the Frith of Clyde; on the east, by Perthshire; on the north-east by Lochaber; and on the north-west by several islands. The extent of it from south to north, between the Mull of Kintyre or Cantire, and the point of Ardnamurchan, where it joins the fluire of Inverness, is about 114 miles; and the breadth in some places, including
ARG

including the isles, about 70. This country, like all other parts of the Highlands, affords a very wild and horrid prospect of hills, rocks, and huge mountains, piled upon each other in stupendous and dreadful disorder; bare, black, and barren to the view; or at best covered with thorny heath, which appears black and dismal to the eye, except in the summer, when it is vexted with an agreeable bloom of a purple colour. The coast of Argyle is rocky; yet indented with bays and inlets, that afford good harbours for ship pgs. The country is well watered by rivers, brooks, and lakes, abounding with fish; the vales and flat parts of it are cultivated for corn; the mountains feed an innumerable quantity of black cattle, which run wild among the hills in winter as well as summer; the heath and woods, of which there is a considerable number, afford shelter to deer, roe-bucks and all sorts of game in great plenty: the circumjacent sea, with its rocks, bays, and harbours, pours forth myriads of fish; but the innate wealth of the country is dug from the bowels of the mountains in iron, lead, and other metals and minerals.

Argyle is the seat of a provincial fynod, confining of five presbyteries and 59 parishes; and gives the title of duke and earl to the noble family of Campbell, the most powerful of all the Scottish nobility. The Duke of Argyle is, by hereditary right, great master of the king's household in Scotland, and general of the Western isles; general of Dunstaffnage and Carrick; and, after the jurisdictions were abolished, enjoyed other hereditary offices, which rendered him too powerful for the subject of a limited monarchy. He holds palls many royalties; his vassals, even of the name of Campbell, are so numerous, and his influence extends so far, that he could, on occasion, bring 5000 or 4000 fighting men into the field. Argyleshire is in general peopled by this clan; and affords a great number of castles and seats belonging to gentlemen who hold of the duke, and boast themselves descended from his family.

Argyle Proper is bounded by Knapdale and Cowal on the south; Lochaber on the north; Lennox and the Grampian hills on the east; and Lorne on the west. It lies between Loch Fyne and Loch Linnhe; which last is a fresh water lake about a mile broad, but extending 24 in length, including 12 islets, on two of which are the cairns of Morar and Glenmorris. This lake, which gives the title of viscount to the duke of Argyle, is in the north of the town of Aw, which, after a course of ixx or ixxi miles, is lost in Loch Etif, and this falls into the sea, opposite to the town of Mull; all these abound with excellent trout and salmon.

Argyleshire sends one member to parliament. Its chief towns are Inveraray and Campbeltown.

When the projected canal shall be completed, and some villages and harbours erected, the populous county of Argyll (Mr. Knox affirms) will become one of the most valuable provinces of the British empire. It abounds in black cattle, sheep, and fish, though the latter are less numerous than those on the more northern shores. Walked on both sides by the sea, deeply indented by navigable lakes and bays; having an easy communication with the fishing grounds on the North Highlands; with Glasgow, and the trading towns on the Clyde; with Ireland, Wales, Whithaven, Liverpool, Bristol, and other ports on the west coast of England, we may easily conceive, that the period is not at great distance, when Argyleshire will become a great commercial county. To corroborate this opinion, he observes, than after a vessel gets under fall from this coast, she enters at once into the Atlantic, where the meets with no interruption till the makes the coast of America or the West Indies. The line, therefore, which nature points out for the inhabitants, is that of salt-making, fishing, ship-building, freights, or the carrying trade; flax and flax-makes, by means of the keep upon their fires, and land found upon Gaillisd, which is adapted for the latter.

ARGYNNIS, in Entomology, a species of Curculio, that inhabits the Cape of Good Hope. It is a black, very green; eyes black; back above, with a little longitudinal dot; Spirura, New Act. Sci. 1785. Gmelin.

ARGYRRIS, a species of Spirula (Zygaena, Fabricius). The wings are green-black, with gold spots; posterior pair brown, and gold at the tails. This is a beautiful insect, and inhabits Bohol, Gmelin. The abdomen is black and red at the tails; a few green tips on the anterior vane, and violet spots on the posterior ones.

ARGYRRIS, in Mythology, an appellation of Venus. Argamennon built a temple to this goddess, under this appellation, in honour of a young favourite named Argynus, or Argyrus, who was drowned in the river Cephissus in Boeotia. Propertius mentions it, lib. ii. eleg. vi p. 690.

"Sunt Argamennonis tellantia litora curras,
Quae notat Argyra penna statans aqua.

ARGYPANA, in Ancient Geography, a town of Italy mentioned by Poccius, who says it was ravaged by Hannibal.

ARGYPHEA, a town of the Peloponnesus, named in the hymn of Apollon altered to Homae.

ARGYRA, a country of India, on the other side of the Ganges, mentioned by Mela, Pliny, and Pompey. Also, a town of India, and the metropolis of the island of Labados, on the western side of which it was placed by Ptolemy. This island, called by Steph. Byz. Isal, seems to have been the same with that named Taprobana. It is said to have derived its nameArgyra from apyreis, silver, on account of its fertility, and the gold which it produced. Argyra was also a town of Greece in Achaia. Paulinus informs us, that this, together with several other towns, was depopulated by Augustus, in order to supply Patras with inhabitants. A fountain of the same name was adjacent to its ruins.

ARGYRASPIDES, or ARGYROIASPIDES, in Antiquity, perfidia, and victors in arms.

The argyreasides, according to Quintus Curtius, made the second cors of Alexander's army; the one that was the phalanx.

According to Justin's account, lib. xii. cap. 7, Alexander, having penetrated into India, and extended his empire as far as the ocean, for a monument of his glory, ordered the amours of his soldiers, and the hoardings of his huts to be adorned with silver. And hence he commanded them to be called argyreasides, from the Greek yapar, silver, and aza, anchoer. By this author it should seem, that Alexander's whole army were called argyreasides. After that prince's death, the argyreasides despised all other chiefs of the army, disdaining to obey any other, having borne arms under Alexander.

ARGYREIA, in Botany, a genus of plants so named by L. urceo, from the slivery appearance of the leaves, items nearly related to Argophyllum, which approximates closely to ivy.

ARGYRELLA, in Entomology, a species of Phalæna (Timus, Gmel.). The wings are silver, glossed with brown and fringed. Tins is a large insect, and inhabits Austria.

ARGYREUS, a species of Curculio found in India. The body is green, with spots of silver and gold. Fabricius and Gmelin. The latter author arranges it with those that have the thighs unarmed; but adds in his description that
that they are somewhat armed, those of the first pair of legs having an obsolete spine.

ARGYRINI, in Ancient Geography, a people placed by Steph. Byz. and Lycophron among the Epitrites, or in Epirus; but J. Vellius says they were the inhabitants of Argyrium.

ARGYRIUM, a town of Apulia, in Italy, built by Dionisius. See Arpi.

ARGYRITES, in Antiquity, a denomination given to Greekian games, which formed part of the worship of some divinity. They were so called, because the victor obtained, as a recompence, either some coin or vales of silver, or bucklers of brass, &c. which were of a different kind in different places.

ARGYRITIS, in Natural History, a name given by the ancients to a substance resembling silver.

In this sense, argyritis was used to signify such litharge as was of a white colour, by way of distinguishing it from that which was yellow, which they dignified with the name chrysitis, as we do at present with that of litharge of gold.

The argyrites of late writers seems to have been the same with the lapis magnesia of the ancients, mentioned by Theophrastus, and distinguished from the magnet.

ARGYROCOME, in Botany. See Baccharis, Gnaphalium, and Xeranthemum.

ARGYRODAMAS, in Natural History, a sort of silver-coloured tale, which bears the fire, and neither burns, melts, nor changes its hue. Plut's Hist. Staff.

Hence its denomination among the ancients of argyrodamas, quisli argentum indoluminum.

ARGYRODENDROS, in Botany. See Protea.

ARGYROLIBANUS, in the Materia Medica of the ancient Greeks, a word used to express the white kind of oilthaminum.

ARGYROPHTHALMUS, in Ornithology, a species of Corvus, whose general colour is black; breast blue; eyes silvery; tail white at the tip; and bill and legs black. Gmelin.

The first account that we have of this bird is in Brown's illustration of Natural History; he figures it under the name of the Sriman Dow in the tenth plate of that work, from a specimen then in the collection of M. Tsuchial, Esq. The same was afterwards described by Dr. Latham, as being of the size of a common crow. Bill dusky; head deep green; hind part rich blue; beneath that pale green; under each ear, and on the hind part of the neck, a spot of the same; neck, breast, belly, back, and wing-coverers deep changeable green; prime quills dusky; ends rich blue; tail dusky; legs flesh-coloured. This bird he calls the Sriman Crow; but having lost its tail, one very striking characteristic of the species was unavoidably omitted, viz. the white spot at its extremity. In the year 1759, Jaquin published his "Beytrage zur Geschichte der Vögel," at Vienna, in which this species is more satisfactorily described; and his description was afterwards inserted in the Supplement to Dr. Latham's Ornithology, and the Gmelinian Syllaba Naturae. From hence it appears to be about the size of a jay; the prevailing colour black; and eyes silvery white with a spot of blue above, and another beneath; the breast and outer part of the wing deep blue; tip of the tail white; bill and legs black. It inhabits Carthagena in New Spain, South America; and is called Ofioon de Plata; has a monotonous voice; frequents woods; and being easily tamed, is often kept in houset in that country.

ARGYROPHEIA, in Alchemy, the art of making silver out of other more imperfect metals.

The word is formed of argyro, silver, and poie, I make.

ARGYROPUS, in Ichthyology, a species of Sparus, found in Jamaica and Carolins; and called by Willughby, Zanthurus indica. The tail is lunate; back grooved; iris of the eye silvery. Brown, in his Nat. Hist. of Jamaica, describes it as Sparus inde argentus. dentibus anterioribus comissus. The three first rays of the dorsal fin are very long and attenuated; this fin consists of twelve rays; the second of twenty-six; pectoral fin of seventeen; vertical fin of six; anal fin of nine; and tail of twenty rays. Gmelin, &c.

ARGYROPULUS, John, in Biographia, a Periaptelic philosopher, was born at Constantinople, in the beginning of the fifteenth century, and was one of the first Greeks, who fled from that city, and taught an asylum in Italy, where he came to reside several years before the taking of Constantinople by the Turks in 1453. In 1456, he was taken under the patronage of Cefrio di Medici, who committed to him the education of his son and nephew in the Greek language and philosophy; and who afterwards appointed him professor of the Greek language at Florence. At his request, he undertook to translate into Latin the physics and ethics of Aristotle, but was obliged to leave Florence on account of the plague, he went to Rome, where Cardinal Befarian conferred upon him the professorship of the Greek language. Here he read lectures upon Aristotle, and he had the honour of being the first modern Greek who taught philosophy in that city. His salary, though liberal, was not sufficient to defray the expenses of his luxurious table; and at the age of seventy, in the year 1484, he fell a sacrifice to the unrestrained indulgence of his appetite, as, eating melos to excess, he brought on a fever which was fatal to him. His learning was respectable; but his manners were not amiable; and he manifested a degree of literary jealousy which disfigured his friends, and prevented him from freely communicating his learning to the Italians. He affected to despise Cicero, whom he maintained had been ignorant of philosophy and Greek learning. His translations, which are found in the more ancient Latin editions of Aristotle, and in the Greek and Latin editions of Psili, are valuable. He also wrote a "Commentary on Aristotle's Ethics," Solutions of questions propos'd by him to certain philosophers and physicians in the island of Cyprus; Epitomes and several small pieces extant in MS.; Brucker's Hist. Philos. by Enfield, vol. ii. p. 405. Fabr. Bibl. Grec. l. v. c. 43. § 24. tom. x. p. 445.

ARGYROSTOMA, in Entomology, a species of Musca, found in the environs of Vienna. It is black and hairy; silvery in front, with bands of the same. Schrank, Gmelin, &c. — This insect is shining above; eyes reddish; and the wings transparent.

ARGYROSTOMUS, in Zoology, a species of Turcc, of a whitish colour, radiated with brown; the spire of the spire are fix, and are rather rounded; the first spire considerably larger than the others; the aperture is silvery; and the tip sometimes red. It is a native of India; is called Gs argentum by Argennville, and is thus specifically described by Gmelin. Shell somewhat ovo-rotund, with a very slightly elevated dorsal and strongly shouldered limbus.

ARGYROSTOMUS, a species of Trochus, that inhabits the southern ocean. This shell is ovate, with umbilicated ribs, and frilled transversely; aperture somewhat compressed; spire of the spire swollen; the first slightly carinated at the base. Gmelin. The breadth is about two inches, and the height nearly the same; its colour is black; the first spire terminates in a row of tubercles; and the pillar lip is very green.

ARGYRRHIIUM, or Argyrium, in Ancient Geography.
A R I

ARGYRUNTUM, or Argurutum, in Ancient Geography, a maritime town of Illyria, according to Pliny and Ptolemy; now Navograd in Dalmatia.

ARHAW, in Geography, a river of Africa, in the kingdom of Algiers and province of Tlemcan, which flows into the Storf, a near a noted sanctuary, called Seedy Abid, at a small distance from mount Atlas.

ARHON, a large mountain of Africa, in the kingdom of Fez. It is a branch of mount Atlas, and extends for a considerable distance from east to west. Its inhabitants are partly Moors expelled from Spain, and partly some Arab families. The soil produces abundance of barley, which is the only grain of the country. They have olives and dried raisins; and they rear great numbers of bees. They also manufacture soap, which is an article of commerce. Their habitations, which are rather huts than houses, are scattered over the country. The emperor of Morocco draws from them a considerable tribute; and it is said, that this simple district is able to furnish 100,000 soldiers.

ARIUS. See AARUS.

ARI, a town of Italy, in the kingdom of Naples, and province of Abruzzo Citera, five miles south-east of Civita di Chieti.

ARIA, in Ancient Geography, the name of an island in the Euxine sea, opposite to Pharmacca, called also Chalceritis. Pliny.

ARIA, a mountain of Asia, part of a chain of mountains mentioned by Ammianus Marcellinus.

ARIA, the most considerable lake of Persia, is situated in the western part of the province of Segistan or Seftan, according to the map of major Rennell between 33° 15' and 32° 45', N. lat. and 50° 15', and 61° 20' E. long. In the French maps it is called the lake of Zaré, from a village of that name near its western extremity; and in the map of major Rennell, the sea of Durrah or Zarrah, from a village seated on a river at the distance of twenty miles from the lake, which village is denominated Corra or Curra, whence is probably derived Zarrah. Pinkerton (Mod. Geog. vol. ii. p. 355.) judges, that this appellation might as well be applied by that of the sea of Segistan. According to Otter (Voyage en Turquie et en Perse, tom. i. 217.) cited by this geographer, the length of this lake is thirty leagues, or a day's journey, in breadth; and the water is fresh and full of fish. By his account it only receives the river of Ferah (Tarrac) or Parsa, which runs from the north-east. Aria, and Aretana, are names that have been applied by ancient geographers very variously. Some have applied them to the same country, and others to distinct countries. Prendergast mentions only Aria, without knowing Aras, and the Arians. Pliny (i. vi. c. 25.) mentions Aretana, but takes no notice of Aria; and yet he distinguishes (i. vi. c. 25.) between the Areti and Arian. Parthia, he says, lies on the Aria to the east, and to the south the Arian and Carmania. Hence it has been conjectured, that the Arians were more widely extended than the Aria, and that under this general denomination were included the Gedrosi and the Oranges, Arian (i. iii. c. 25.) has Aria and the Aries, but it is silent with regard to Aretana. Strabo has both names, and extends the limits of Aria, beyond those of Aria: observing, in general, without setting their boundaries, that Aretana commences from India; and he cites a topography, who says that Aria was bounded on the east by Indus, on the south by the Great Sea, on the north by Paropamisus and the mountains as far as the Caspian ports, and on the west by the boundaries which separate Parthia from Media, and Carmania from Parthian and Persia; and, accordingly, Aria is very extensive. Salmantius (Exerc. Phil. p. 553.) distinguishes his Aria from Aria, but does not assign to it any precise limits. The limits of Aria, according to Ptolemy, are parts of Margiana and Bactria, on the east the Paropamisadis, and on the north Drangiana; and Strabo says, that the Aria are adjacent to the Paropamisads on the west. Aria, in major Rennell's map, is a part of the province of Persia, called Koran or Korefan. ARIA, or Artacboina, the chief city of the country called Aria, seated on a river, called by Arian, Areios; by Pliny, Aries; by Ammian, Aria; which had several fortresses in the defect of Margiana, and in the Saraphi mountains, and runs into the Aria Palas, or lake of Aria. In its course it passed by Alexandria, according to Pliny, who calls this city Alexandra Arian or Arianum. Aria or Artacoena is the present Herat, placed in Rennell's map at the confluence of two streams, which form the river that runs into the lake of Durrah. ARIA, Ital. for Air, English (which see). Herr Sulzer, an elegant German writer on the subject of the fine arts, has delivered the construction, and what was thought the perfection of an opera Aria, about the middle of the last century, during du capo times; and not only apologized for it, but extolled and praised it. Aria, by its frequent, and pointed out their utility and beauty in draperies now quite exploded, both in theory and practice. In the remarks of Mr. Framery on the encomiums of H. Sulzer (Encycl. Meth. p. 95.), he allows that his precepts are excellent, but that his definition appears imperfect. He then gives his own notions, which tally more with modern practice. After which he adds, "as to the form of opera Aria indicated by M. Sulzer, it is much varied since he wrote on the subject." The Italians at length, tired of their eternal monotony, melted down the second part of their Aria into the first; or, if definite, when the expression of the words requires it, they do not think themselves obliged to return to it by a du capo. The Aria of comic operas are constantly
ARI

flantly confined to one part or strain, unless some new measure, or similar idea in the words, absolutely requires a different expression. The movement then is changed, and finishes by an Allegro, without returning to the first part.

Aria-Bipar, in Botany. See Milia.
Aria Throphostra. See Crataegus.
Aria-Perih. See Glome.

ARIACA, in Ancient Geography, a maritime country of India, situate, according to the Periplus of the Erythraean sea, to the Arch of Combius Colinus, and thought by M. de Avoile to be the southern part of the country called Latrice.—Ariaca was also a town of Margiana. Pliny.

ARIACAE, a people of Scythia, on the left bank of the Jaxartes, near the Caspian sea. Pliny.

ARIACES, Sadinorum, or Sadanarum, a people of India. Pliny, on this side the Ganges.

ARIACOS, or Aria, a small town of Asia Minor, in Myopia, situate between Placia and Scyelse, near Olympus. Pliny.

ARIADNE, in Antiquity, solemn festivals held at Naxos, in honour of Ariadne.

The Ariadnes are said to have been instituted by Theseus, in atonement for his cruelty in exposing Ariadne big with child on that coast. They were of a mournful cast; one part of the ceremony was for a young woman to lie down, and counterfeit all the agonies of a woman in labour. There was another festival, which was celebrated with various expressions of mirth, in honour of another Ariadne, who was of a gay and sprightly temper. Plut. in Thef. and Potter's Arch.

ARIADNE, in Entomology, a species of Papilio (Nymph. Phal.) described by Linnæus, Fabricius, and Gmelin. The wings are angulated, fulvous, with undulated black breaks, and a white marginal spot on the anterior pair. It inhabits Java—Olf. Cramer has figured this insect under the name of Papilio Merione; and the Papilio Corixa, of the same author, appears to be only a variety of the former species.

ARIADES, in Fabulous History, a daughter of Minos, king of Crete, who being prefposseled in favour of Theseus, committed to destroy the Minotaur, gave him, in token of her love, a clue of thread, which served to conduct him out of the labyrinth, after his defeat of the monster. Theseus, on leaving the island, took with him Ariadne, but abandoned her in the isle of Naxos. Bæcchus found, and married her, and presented her with a crown of gold manufactured by Vulscan, which was afterwards transformed into a constellation. Ariadne had a son by Bæcchus, called Eumemon, who was one of the Argonauts. According to Plutarch, there were two females of the name of Ariadne; one of them was espoused to Bæcchus in the isle of Naxos, and became the mother of Staphylus; the other was abandoned by Theseus in the same isle, where she died. Hence were derived the two kinds of beaks, called Ariaidea. Ariadne's fountain in the isle of Naxos is now only a simple streamlet of water, to which, says Olivier, (Travels in the Ottoman Empire, t. ii. p. 110,) travellers would pay no attention, if they were not thus reminded of the spot where Ariadne abandoned herself to all the despair of a forlorn milkmaid, and from which the perceived the vessel which was transporting her lover from her. At the brink of this fountain, it is said, she came daily to shed tears, Bæcchus found her; and equally compassionating her misfortunes, and enmoured of her beauty, succeeded in confounding her, and in prevailing with her to forget an ungrateful man.

ARIDAE, in Statuary, a beautiful statue of Parian marble, which was for near three hundred years one of the greatest ornaments of the Belvidere; where it was placed by pope Julius II. It is now in the museum at Paris. Ariadne is here represented sleeping upon the rocks of Naxos; where she had been ungraciously left by Theseus. The disorder of the drapery in which she is wrapped, beautifully points out the distraction and anguish of her mind before she fell asleep. On the upper part of her left arm is a bracelet in the form of a little serpent, which the ancients called Ophius, and which, by being taken for the representation of the alpae, has occasioned this statue for a long time to be called Ceopis, by which name it is still known.

ARIALDUNUM, in Ancient Geography, a town of Spain, under the jurisdiction of Cordoba. Pliny.

ARIAN, a name given by a tribe of Tartars, called Bashchkirians, to their favourite drink, which is a mixture of four milk and mead, and which they keep in an oblong bottle, suspended near the chimney of their hut.

ARIANA, in Ancient Geography. See Aria.

Ariana, in Geography, formerly called Abderana, a village in Africa, in the province of Tunis Proper, and about three miles distant from the city of Tunis. It is inhabited by poor gardeners, who supply the city with fruit and herbs. At this place the Carthaginian aqueduct forms a curious object, being seventy-four feet high, and supported by columns four feet square, beautifully cut; and near it are several mastomors or subterraneous mines for corn, strongly arched, and capable of holding a great number of bullocks.

ARIANO, a town of Italy, and a bishop's see, in the kingdom of Naples, and Principe Ultra. According to M. Sabinus (Travels in the Two Sicilies, vol. i. p. 202,) it is an ugly city, built upon the uneven summit of a mountain, with an extensive prospect, but much exposed. He supposes that it is not so ancient as the time of the Romans; and that it owes its rise to the demolition of some neighbouring town, and to the advantage afforded by its situation for discovery and defence. After having several times changed its possessions, it became a part of the demeine of the crown in 1406. It has neither trade nor manufactures, and has declined ever since the desolation occasioned by an earthquake in 1456. The number of inhabitants is estimated about 14,000, and it includes twenty parishes and convents, besides an ill-endowed cathedral. The wine of Ariano is pale, and reekable, both in colour and the sharpness of its taint, red champagne. The soil in its vicinity lies upon a soft argilaceous stone; at a small distance to the east, is a bank of mixed layers of volcanic earth, interperfered with thick strata of oyster shells. The salt and most destructive earthquake experienced in this territory, was that of the year 1732, N. lat. 41° 8'. E. long. 15° 16'.

ARIANS, a denomination given to a class of the ancient inhabitants of the Russian empire, called by the Russians Votyska from the river Votisk, on which they were formerly situated. They call themselves Ari, and their territory Ariam. Their chief town is Chiucof, and the other towns are Sobodskoi, Kaigorod, and Orlof. At first they were subject to the Bulgarians, and afterwards to the Tartars, from whom language they adopted many words into their own.

ARIANS, in Ecclesiastical History, followers of Arius, a presbyter of the church of Alexandria about the year 345; who owned Christ to be God, yet maintained him inferior to the Father even as to his deity, and his efficacy to be different from that of the Father, and that he was neither co-eternal nor co-equal with him; also that the Holy Ghost was not God.

The Arians owned that the Son was the word, but denied that word to have been eternal; alleging, that it had only been created before all other beings. They held, that
that Christ had nothing of man in him but the flesh, with which the words or words was joined, which supplied the rest.

The distinguishing sentiments of Arius may be deduced from his own writings. In his letter to Eunapius of Neo-
media, he says, "We cannot object to their emotions, always Father, always Son, at the same time Father and Son, that the Son always co-exists with the Father; that the Father has no pre-existence before the Son, not to much as in thought, or a moment. But this we think and teach, that the Son is not begotten, nor a part of the uncreated and unpre-existent thing; but, by the will and pleasure of the Father, he existed before time and ages, the only begotten G., unchangeable; and that before he was begotten, or made, or designed, or founded, he was not.—But we are perfected, because we say, that the Son has a beginning, and that God has no begin-
ing. For this we are perfected; and because we say, the Son is out of nothing: which we therefore say, be-
because he is not a part of God, nor made out of any pre-
existent thing." In his letter to Alexander, bishop of Alex-
andria, he says; "We believe, that there are three per-
sons, the Father, the Son, and the Holy Gholl. God, the cause of all things, is alone without beginning. The Son, begotten of the Father before time, made before the ages, and founded, was not before he was begotten. Nor is he eternal, or co-eternal, or begotten at the same time with the Father." The creed, which was prep-
ared by Arius at the council of Jerusalen in 325, was this: "We believe in one God, the Father Almighty; and in the Lord Jesus Christ his Son, begotten of him before all ages; God the word, by whom all things were made, which are in heaven and in earth; who came down and was incarnate, and suffered, and rose again, and ascended to the Father, and shall come again to judge the living and the dead; and in the Holy Gholl; the resurrection of the flesh; the bite of the world to come; and the kingdom of heaven; in one catholic church of God, extending itself from one end of the earth to the other." In short, the Arians seem to have be-
lieved, that Christ was the Word of God, and was in the
beginning with God; but was not the self-existent God, with whom he was in the beginning; but his Son, created by the Father before all ages, one super-angelical and perfect Spirit; and thereby became his only Son, by whom he created all other beings; and that, when he came down from heaven to inhabit the body which was prepared for him in the womb of the blessed Virg.; this super-angelical spirit alone was the soul that informed and enlivened it. From the fol-
lowing abstract of the real opinions of the Arians, as they are given by Dr. Cave in the words of Arius, the reader
may be enabled to compare them with those that have been
deemed orthodox. First, as the Arians believed the divine subsistance of the Father to be unbegotten and without be-
ginning, they concluded that it was different from the sub-
stance of the Son, who was begotten and had a beginning.
But the Athanasiens believed the Father and the Son to be
of the same subsistance; that is, of the same general subs-
stance, as men are of the same subsistance; and the Fi-
endo Athanasiens believe them to be of the same

ARIOUS.

They condemned this from Prov. viii. 26. And because they believed it blasphemous to say, that this generation was out of the invisible subsistence of the Father, and no other subs-
stance than existed, they said, he imbued, not of or from
the Father, but from nothing, and he is not of the Father's subsistance, for he is created and made. But the Athanasiens believed, the Son was literally generated from the Father's subsistance. Firstly, as the Arians believed the Father and the Son be of a different subsistance, they believed them also to be of distinct beings, separately existing, in which they agreed with some of the orthodox fathers, as Origen, Gr.

Gregory Nazianzen, Cyril of Alexandria, Maximus the Martyr, Damasenius, Dionysius of Alexandria, Alexander of Alexan-
dria, &c.; and differed from others who believed him to be of or from the Father's subsistance, as the leaves are from the tree; but not divided from it, as the Athanasiens. Fourthly, they believed that Christ was the only begotten Son of God, because he only was created by the immediate act and power of God him self; and that all other beings, the Holy Gholl not excepted, were created by Christ; in which they agreed with Origen and Eusebius, men of so great character as any in the Christian church. And therefore they called him a creature; but not like other creatures. Tithes, they believed, that the Son was generated or created before all ages; and was a real person, when spoken of, Prov. viii. 23; and that his generation was over, as soon as he existed. Where-
as some of the orthodox believed him to be only an attribute, when there spoken of; and that he was afterwards generated into a Son; and some of them believed him eternally generat-
ing, as light from the sun. Sixthly, they believed the divine
being, who descended from heaven and was born of the vir-
gin Mary, was the only intelligent spirit that animated the
body of Christ; and that this divine being was begotten: but the orthodox believed, that the divine being, that descended from heaven and animated the body of Christ, was incapable of suffering; and that it was only the human nature, or soul of Christ that suffered; i. e. a mere man. Seventhly, as the Arians believed Christ to be the Son of the only true God, and not the true God and Father of that Son, it was very con-
venient with their belief to say, "He is not the true God." But if it be imagined, that by this expression they meant to deny, that Christ was truly God the Son, the expresw words of Eu-
nomius, who calls him, "The only begotten God, the frith-
born of the whole creation, Christ, true God, not unbe-
gotten;" prove the contrary: and Arius himself explains his meaning sufficiently, when he says, "He is not the true (self-existent and unoriginate) God, but receives his divinity by communication; which was also the opinion of Origen, Eusebius, and Laetantius.

It has been commonly affirmed, that Arius denied the eternity and divinity of the Son of God: but the author of "The Apology of Ben Mordecai," p. 93, says, that this assertion never appeared to him to have been made upon good authority; for he never denied the eternity of the Son in any other sense than that in which it is denied by the orthodox, and signifies unoriginate and un-
begotten; that is, self-existent: and that the charge against him of his not believing the divinity of Christ is not founded, appears from this circumstance; that his adversaries accused him of idolatry, because he worshipped the Son of God; supposing him at the same time to be a God created before all ages. Now if he was idolatrous in believing Christ to be a created God, it is impossible he should at the same time be guilty of denying his divinity. Besides, Theodoret says, it was the opinion of Arius and Eunomius, that Christ took a body: but the head or divinity performed the office of a soul: and Athanarius says, Arius taught that Christ had the flesh as a covering to the divinity or godhead. Never
Nevertheless, Athanasius’s enmity to Ariusism is well known. He speaks of it as the worst of all heresies, and says, the devil was the father of it; nor will he by any means allow, that Arians can be rightfully called Christians. However, in declining against Ariusism, as the worst and most hateful of all heresies, he makes this its peculiarity, that the Arians endeavored to carry their point by externals, that is, civil authority, or the power of the magistrates. And on account of the violent methods to which they resorted, he says, that this fact, or hereby, had put on the devil complete.

The rise of the Arian controversy is referred by some to the year 316, by others to 319, by Eusebius to 315, and by Borbonius and others to the year 317. Socrates (Eccl. Hist. i. c. s.) gives this account of its origin. “Alexander,” he says, “discouraging one day too curiously concerning the doctrine of the Trinity in Unity, in the presence of his prebishops and the rest of his clergy, Arius, one of the prebishops, supposing his bishop to advance the doctrine of Sabellius, and disliking that, he went into an opinion directly opposite.” Theodoret also says (Eccl. Hist. i. iv. c. 1.) that Arius took occasion, from things said by Alexander, to raise a disturbance: and Constance likewise, in his letter to Alexander and Arius, first blames the former for putting questions to his prebishops, which he ought not; and then the latter, for inconsiderately uttering notions that ought to have been buried in silence. Accordingly, it seems to have been the chief view of the Arians, as well as of the orthodox, to steer a kind of middle course between Sabellianism and Socinianism. To which purpose, the Arians maintain, against the Sabellians, that the Son of God is a being distinct and different from the Father, and not a mere virtue, or character, or mode of existence; and against the Socinians, as well as the Nectarians and Sabellians, that Christ was not a mere man, but a true God.

After Arius had for some time published the doctrines that are ascribed to him, Alexander was blamed for his indifference, and for his toleration of such novelties. Roufed by reproaches and complaints, he appointed a time for hearing the subjects in dispute fairly debated between Arius and those who opposed him. Arius adhered to the opinions he had advanced; and they who opposed him asserted the Son to be consubstantial and co-eternal with the Father. And though another assembly was appointed for debating the points in agitation, they could by no means come to an agreement. Alexander himself is said to have been at first in some suspense; but at length he declared himself in favour of those who were the antagonists of Arius.

The Arians were first condemned and anathematized by a council at Alexandria, conferring 100 bishoprics, in 320, under Alexander, bishop of that city; who accused Arius of impurity, and caused him and several ecclesiastics, of whom two were bishops, to be expelled from the communion of the church: and afterwards by 318 fathers in the general council of Nice, assembled by Constance in the year 325. In the interval between these councils, Alexander had written a circular letter to all bishops, in which he reprents Arius and his partisans as heretics, apostates, blasphemers, enemies of God, full of impudence and impiety, forerunners of antichrist, imitators of Judas and of men whom it was not lawful to salute, or to bid God speed. Yet Sozomenus (i. c. 15.) acknowledges, that they were learned, and, in all appearance, good men. Eusebius of Nicomedia, and Eusebius the historian, endeavored to pacify Alexander, and to persuade him to compromise the quarrel; and Constance sent a letter, about the year 334, by Houbias of Corduba, addressed to Alexander and Arius, in which he reproved them both for disturbing the church with their insignificant disputes, and exhorted them to mutual forbearance and forbearance. But the dispute was not to be thus terminated; and Socrates represents the parties on both sides as equally contentious and refractory. Accordingly the Nicene council was summoned. At this council Eusebius proposed a creed, in which he avoided the offensive word οὐδεμίας, οὐκοπόται, and anathematized every impious particle, without specifying any; but his advice was not followed, the term was inferred, and the Arian doctrines were anathematized. But notwithstanding these measures, Ariusism was not extirpated; on the contrary, it became the reigning religion, especially in the East, where it obtained much more than in the West. Arius was recalled from banishment by the emperor Constantine, in two or three years after the council of Nice, as some say in 327 or 328, or according to others in 330: and the laws that had been enacted against him were repealed. In the year 335, Athanasius, his zealous opponent, was deposed and banished into Gaul, by the council held at Tyre; and Arius and his followers were reinstated in their privileges, and received into the communion of the church: in little more than a year after this, he fell a victim to the resentment of his enemies, and died a tragical death, occasioned probably by poison, or some other violence. The Arian party found a protector in Constantinus, who succeeded his father in the empire of the East; and the zeal with which he abetted them, produced many animosities and tumults at the time of his death, in the year 337. They underwent various revolutions, perfecting and oppressing, under succeeding emperors, according to the degree of interest they had in the civil power; till, at length, Theodosius the Great exerted every possible effort to suppress and disperse them. He drove them from their churches, enacted laws whose severity exposed them to the greatest calamities, and rendered, throughout his dominions, the decrees of the council of Nice triumphant over all opposition; so that the public profession of the Arian doctrine was confined to the barbarous and unconquered nations, such as the Burgundians, Goths, and Vandals.

The Arians were divided into various sects, of which ancient writers give an account under the names of Semi-arians, Euchelians, Arians, Eunomians, Acacians, Paphyrians, and others. But they have been commonly distributed into three classes, viz. the genuine Arians, Semi-Arians, and Eunomians. The Arian cause suffered as much from the discord and animosity that prevailed among these sects, as from the laboured and zealous efforts of the orthodox party. Ariusism was carried in the fifth century into Africa, under the Vandals; and into Asia, under the Goths. Among those fierce and savage nations, which were overwhelming the Western empire, it found a fixed residence, and a peaceful retreat. As their security animated their courage, they treated the Catholics with the same violence which the latter had employed against them and other heretics; and they persecuted and vexed in various ways such as professed their adherence to the Nicene doctrines. The Vandals, who reigned in Africa, furpassed all the other savage nations in barbarity and injustice towards the Catholics. The kings of this fierce people, particularly Genéric and Hunéric his son, demolished the churches of those Chritians who acknowledged the divinity of Christ, sent their bishops into exile, and mained and tormented in various ways such as were firm and inflexible in the profession of their faith. During these persecutions in Africa, a hopeful miracle is said to have been wrought, by which the Supreme Being is supposed to have testified his displeasure against
Arians.

against the Arians, and his favour to their adversaries. This
miracle confounded in enabling these Catholics, whose tongues
had been cut out by the Arian tyrant, Humifus, to speak di-
finitely, and to proclaim aloud the divine majesty of the Si-
vior of the world. This remarkable tale, says Morin, can
fearfully be believed, since it is supported by the testimony of
the most credible and respectable witnesses; but whether
it is to be attributed to a supernatural and miraculous power
is a matter not to easily decided, and which admits of much
dispute. The reality of this extraordinary fact is attested by
Victor, an African bishop; Zenas of Giza, a platoic phi-
lopher; a perpetual edict of the emperor Julianus; count
Marvellinus in his Chronicle of the times; and pope Gregory
the first, who had refuted at Constantinople as the minister
of the Roman pontiff. Among the moderns who have defend-
ed its miraculous nature, we may mention Abbodice, Berri-
man, Chapman, and Dodwell; and we may refer to Mr.
Middleton's "free inquiry into the miraculous powers," &c.
in his Miscellaneous works, vol. i. p. 149, &c.; and to
Mr. Tott's Defence, p. 89, &c. for arguments against it.
The learned historian, Mr. Gibbon, observes in his usual
manner, (Hist. of the Decline, &c. of the roman empire,
vol. i. p. 295;) that "this supernatural gift of the African
confessors, who spoke without tongues, will command the
attent of those, and of those only, who already believe, that
their language was pure and orthodox; but the blabborn
mind of an infidel is guarded by secret, incalculable fuperici-
and the Arian, or Socinian, who has fiercely rejected the
docline of the Trinity, will not be shaken by the most plu-
flible evidence of an Athenian miracle." Italy, the Gauls,
and Spain, were also deeply infected with Ariafinism; and
towards the commencement of the sixth century, it was tri-
umphant in many parts of Asia, Africa, and Europe.
Many of the Arian bishops favoured the Arians secretly,
while their opinions were openly professed, and their cause
maintained by the Vandals in Africa, the Goths in Italy,
the Spaniards, the Burgundians, the Suevi, and the greatest
part of the Gauls. The Greeks, indeed, who had received
the decrees of the council of Nice, perfected and oppres-
sed the Arians, wherever their influence and authority could
reach; but the Nicerians, in their turn, were not left ligo-
rously treated by their adversaries, particularly in Africa
and Italy, where they felt, in a very severe manner, the weight
of the Arian power, and the bitterness of their resentment.
The triumphs of Arianism were, however, but transitory;
and its prosperous days were entirely eclipsed, when the
Vandals were driven out of Africa, and the Goths out of
Italy, by the arms of Julianus; for the other Arian princes
were easily induced to abandon themselves the doctrine of
that sect; and not only so, but to employ the force of laws
and the authority of councils to prevent its farther progress
among their subjects, and to extirpate it entirely out of their
dominions. Such was the conduct of Sigifund, king of the
Burgundians; Theodern, king of the Suevi, who had
settled in Lusitania; and Recared, king of Spain. How-
ever, it revived again in Italy, under the protection of
the Lombards in the seventh century.

Erasmus seems to have aimed, in some measure, to refor-
m Arianism, at the beginning of the sixteenth century, in his
commentaries on the New Testament: accordingly, he was
reproached by his adversaries with Arian interpretations
and glosses, Arian tenets, &c. To which he made little
answer, save that there was no heresy more thoroughly ex-
tinct than that of the Arians: "Nulla heres magis extinta
quam Arianorum." But the face of things was soon changed:
Servetus, a Spaniard by nation, published, in 1531, a little
satire against the Trinity: which once more excited at-
tention to the sentiments of the Arians in the West-In
indeed, he rather flattered himself a Photinus than an Arian;
only that he made use of the same passages of scripture,
and the same arguments against the divinity of our Saviour,
with the proper Arians.

It is true Servetus had not, properly speaking, any adver-
saries; but he gave occasion, after his death, to the forming
of a new system of Arianism in Greece, which did not a
little puzzle Calvin. From Geneva, the new Arians re-
oved to Poland, where they gained considerable ground;
but at length became Socinians.

The apophasis Arian has been indiscriminately applied,
in more modern times, to all those who consider Joseph
Christ as inferior and subordinate to the Father: and whose
sentiments cannot be supposed to coincide exactly with
those of the ancient Arians. Whilist they all concur in
maintaining the pre-existence of Christ as a super-angelic
spirit, which supplied the place of a son to him upon his
conception and birth, and also his derivation from and sub-
ordination to the Father; some of them ascribe to him a
higher degree, rank, and dignity, than others. Accordingly
they have been sometimes distinguished into High and Low
Arians. The former, approaching in opinion to those that
have been called Semi-Arians, or rather to the ancient
Arians, whilst they believe the Father to be the one supreme
God over all, absolutely eternal, undivered, unchangeable,
and independent; conceive the Son to be the first derived
being from the Father, and under him employed in creating,
and also in preparing and upholding the World, and in ex-
cercising a moral, as well as natural, administration over man-
kind; so that, under this distinguishing character, he is
involved with the office of final judge. Of these high Arians,
some suppose, that Jesus Christ, sustaining relations, and
exercising offices to honorable in themselves and so interest-
ing to mankind, is a proper object of subordinate worship;
whilst others imagine, that worship in the proper and discri-
minating sense of the term, belongs only to the Father, the
self-existent, infinite, and supreme deity. Some Arians of
this class have maintained, that the Son of God, before his
incarnation, had only, or chiefly, the care and government
of the Jewish people allotted to him; whilst other angels
were appointed prefects or princes of other nations and
countries. This was the opinion of Mr. James Petre, an
ingenious and learned commentator: see his "Paraphrase
on Colos. ii. 15," and Heb. vi. 6. Others have also main-
tained, that the conduct of all the dispensations of Prov-
ience, in every period of time, as they related to the
patriarchs, to the Jewish nation, to the prophets, to
Christians, and to the world in general, has been entrusted
to Christ; and that he was distinguished by various appro-
priate titles, as Jehovah, the angel of the covenant, the
angel Jehovah, the angel of the preقاء, and the Logos, &c.
To this purpose they allege, among other arguments, the
declaration of the Apostle (Heb. i. 14.) that it was by
Christ God made the worlds, "after the ages and dispensa-
tions; i.e. by whom God formerly disposed and ordered
those eminent and remarkable periods of time; the Anted-
luvian, the Patriarchal, the Mosaic, and the Prophetic; and
being put under his government, according to the will of the
Father. See Ben Moredean's Apology, letter ii. palfun. It is
also alleged as a further presumption in favour of this hypo-
thesis, that the sacred writings contain a revelation and his-
tory of the administration of Providence with regard to all
the inhabitants and concerns of our world, or of the ter-
restrial globe; and, of course, that the subordinate direction
and superintendence of this part of the government of the
supreme and infinite government of the world, and all other
 worlds,
ARIANISM, the doctrine of Arius, who lived in the beginning of the fourth century. See ARIAN.


ARIAS, or ARIUS, a river of Asia.

ARIAS DE INFANTA, in Biography, a learned Benedictine monk of the sixteenth century, was born at Seville, of a noble but reduced family. Having completed his education at Alcalá, where, besides the study of theology, he made himself master of the Latin and Greek languages, and of all Hebrew, Arabic, Syriac, and Chaldee; he travelled through France, Germany, Italy, the Netherlands, and England, for the purpose of acquiring an acquaintance with the modern languages. Upon his return he took priest’s orders, and then accompanied the bishop of Segovia to the council of Trent, where he obtained great reputation. He afterwards retired to Arevena, a pleasant spot near the mountains of Andalusia, to prosecute his literary labours. From this retreat he was summoned by Philip II. and entrusted with the care of a new edition of the Polyglott Bible, which he much enlarged and improved. The execution of this work contributed so much to his reputation, that he became the object of envy; and he was under the necessity of taking a journey to Rome, to vindicate himself from the censure of those who reproached him with having too closely followed the explanations of the J ewish Rabbins. As soon as he returned to Spain, Philip offered him a bishopric, as a recompense for his labours; but this he declined accepting, and contented himself with a pension of two thousand ducats, and the office of chaplain to the king. He died at Seville in 1568, at the age of seventy-one years. His mode of living was singularly abstemious, as he drank no wine, and seldom tasted animal food. He was indefatigable in his studies; and was regarded as one of the first literary characters in Spain. His writings, which are numerous, bear evident marks of sound sense, as well as profound erudition. Besides his "Discussions on Jewish Antiquities," prefixed to the Polyglott, printed in the "Critici Sacri," and published separatively, in 4to. at Leyden in 1566; he has left in Latin, "Commentaries on several parts of Scripture," published at Antwerp, at different periods, between the years 1583 and 1599; "History of Manchuria," in 1593; "A Treatise on the History of Nature," in 1601; "A Version of the Psalms and Ecclesiastes," in Latin verse, in 4to. 1574, with other poetical pieces; and a translation of Jonathan’s Chaldee paraphrase of Hosea, and the Itinerary of Benjamin of Tudela, Dupin. Novis. Dict. Hist.
Lima; but since that period, the Spaniards have chiefly sent it by land, as the most secure, though most difficult mode of conveyance. It also suffered much by an earthquake in 1005. As they have little or no rain in this place, their houles are built without roofs. The valley of Arica is principally famous for the culture of Guinea pepper, which the Spaniards planted here, of which they raise annually to the value of eighty thousand crowns. This port is still much frequented, not merely on account of the mines, to which it afford an easy access, but for the rock-fall which is dug out of the eastern mountains, and which is shipped for the western coast. S. lat. '18° 27', W. long. 71° 5'.

ARICADA, in Ancient Geography, a town of Asea, in Dingiana. Potency.

ARICARETS, in Geography, a nation of South America, in Guiana, on the banks of a river called Aricari.

ARICATE, a town in the island of Cape Breton.

ARICHI, in Ancient Geography, a people of Afiatic Saramatia, among the Moexa, near the Palus Moeys. Potl.

ARICIA, a town of Italy, in Latium, near the Alban mount, on the Appian way, about twenty miles from Rome. This city existed before the establishment of the Greeks and Latins in Italy; and the inhabitants of it were often distinguished among the encensics of Rome in its naifent state. Cicero speaks of it as a municipal town; and Frontin us, ranking it in the number of colonies, says, that its walls were erected by the orders of Sylla. Near it was the 6th Nesmus Aricinum," or grove of Diana, who hence obtained the epithet of "Aricine." Here she had a temple frequented by her votaries, who travelled to it on foot from Rome, with images covered with crowns, and crowns on their head.

ARICONIUM is placed, in Antoninus's Itinerary, near Ro's, about eleven miles from Caerleon: our other antiquaries place it at Kuchelkirt. It was a town of the Sabines.

ARICOURIS, in Geography, a people of South America, in Guiana, towards the river of the Amawpons. De Lact says, they manifest no signs of religion, but seem to respect the sun and moon, without paying them any worship; and yet they appear to believe the immortality of the soul, as they point to the heavens: as, after death, the abode of those who have lived well. They are timid, frugal, and inclined to revenge. They are addicted to forcery, and confound toothfayers, who, as they think, are inspired by a demon called "Watipa," and thus enabled to foretell future events. Their eyes and hair are black, and they have no covering: but the men envelop themselves all over in a kind of gummy dye, to preserve their bodies from the heat of the sun, and the women paint themselves with it more lightly, and in a variety of figures.

ARIDANA, a town of Arabia, ten miles south of Mecca. ARIDAS, a kind of tapestry, manufactured in the East Indies, from a shining thread obtained from certain herbs; and hence called "Aridas of herbs."

ARIDED, in Astronomy, a fixed star of the second magnitude, in the extremity of the Swa's tail. It is also called Hieroezin, Adigeze, and Aride.

ARIDÉLOSIS, σφαίρωσις, in Rhetoric, is sometimes used for the figure commonly called synony mia.

ARIDSONG, in Geography, a town of Asea, in the country of Thibet, one hundred and fifty-two miles north of Carmandu. N. lat. 30° 40', E. long. 84° 45'.

ARIDULLAM, in Natural History, the name of a fo- file substance, used in the East Indies in intermittent fevers. It is of a greenish yellow colour, and coarse texture, and when burnt, emits fumes smelling like arsine. It is properly of the zarine kind, though somewhat different from all the European kinds.

ARIDURA, in Plutarch, a dryness, or want of juice and moisture of the parts. Hence it is also used by fome for an aridity or conformation; and it is more particularly used to denote a hectic fever. The term is more frequently used by Modern Writers, to denote a particular atrophy, or want of some single member of the body; in which fene, it amounts to the fame with what we otherwise call withering.

ARIENT, in Geography, a small island in the Adriatic, near the coast of Italy, three leagues north of Venice.

ARIZENZO, a town of Italy, in the kingdom of Naples, and country of Lavaera, fourteen miles north-east of Naples. Its situation is low, but delightful, and it is surrounded with vineyards and gardens. It now belongs to Caraffa, duke of Macaloni.

ARIES, or the Ram, in Astronomy, a northern constellation, the first of the twelve signs of the zodiac; from which also a twelfth part of the ecliptic takes its denomination, and into which the sun enters about the twentieth of March. The stars in this constellation, in Ptolemy's catalogue, are 18; in Tycho's, 21; in Hevelius's, 27; in the Britannic catalogue, 66; but they are most of them very small, one only being of the second magnitude, two of the third, and all the rest smaller.

ARIES, in Artillery, denotes a battering-ram, or a military engine with an iron head, much in use among the ancients, to batter and beat down the walls of places besieged.

Of this there were three kinds; the first rude and plain; the others critical and compound.

The first seems to have been no more than a great beam, which the soldiers bore in their arms, and with one end of it, by main force, assailed the walls. This required a great force to work it; yet produced but a small effect.

The second or compound ram is described by Theophrastus (De Extinct. Hierofol. 3.) thus: "The ram is a vast long beam, like the mail of a ship, strengthened at one end with a head of iron, somewhat resembling that of a ram, whence it took its name. This is hung by the middle, with ropes, to another beam which lies across two polls; and hanging thus equally balanced, is by a great number of men violently thrust forward, and recoiled backward, and so shakes the wall with its iron head, nor is there any tower or wall so thick or strong, as to resist the repeated assaults of this forcible machine."

The third only differed from the former, in that it was covered with a χίλιαρι, or screen, to guard the soldiers; whence it was called τρίτη καταρτία.

Mr. Feibien describes a fourth sort of battering-ram, which ran on wheels; and was the most perfect and effectual of the all. Vitruvius affirms, that the battering ram was first invented by the Carthaginians, while they had siege to Cadiz: theirs was the simple kind first mentioned. Psphamenes, a Tyriam, afterwards contrived to suspend it with ropes; and finally, Polydus, the Thebalian, to mount it on wheels, at the siege of Byzantium under Philip of Macedon. Yet Pliny affures us, that the ram was invented at the siege of Troy; and it was this that gave occasion to the fable of a wooden horse. The invention has been ascribed by some to Arctemus, a Greek architect, who flourished 441 years before Christ. Some have supposed, that the walls of Jericho, mentioned in the book of Joshua, were beaten down by this instrument; the ram's horns by which they were overthrown being no other than the horns of the battering ram.

Plutarch tells us, that M. Antony, in the Parthian war, used a ram of 50 feet long; and Vitruvius affures us, that
they were sometimes made 105, and sometimes 120 feet long; to this great length perhaps the force of the engine was in great measure owing.

The ram was managed at once by a whole century of soldiers; so that it played continually and without intermission; being usufully covered with a vinca, to protect it from the attempts of the enemy.

The battering ram is represented in Plate I. Artillery, fig. 1. This ram AB is fastened by a rope at to the cross beam y, at the top of the frame CD. Its head A is fastened to a large beam by three or four bands of iron four feet broad. At the extremity of each of these bands a was a chain b also of iron, fastened by one end to a hook z; and at the other extremity of each of these chains was a cable firmly bound to the ball link. These cables extended through the whole length of the beam to the end of the ram B, where they were bound firmly together with small ropes. To the end of these cables was fastened another, composed of several strong cords plaited together for some length, and then running single. At each of these several men were placed to balance and work the machine. The unsuspended ram differed from this only in the manner of working it: instead of being hung by a chain or cable, it moved on small wheels, on another large beam.

These battering-rams, by their own weight, and by the action of the men who impelled them, excited a force which in some cases exceeded the utmost effect of our battering cannon.

Dr. Defaguiers (Lectures, vol. i. p. 63.) has demonstrated that the momentum of a battering-ram, twenty-eight inches in diameter, one hundred and eighty feet long, with a head of cast iron of one and a half ton, the whole ram weighing with its iron hoops, 141,112 pounds, and moved by the united strength of 1500 men, would only be equal to that of a ball of thirty-six puncheons weight shot point blank from a cannon.

Mr. Atwood, comparing the effect of the battering-ram, having its metal extremity equal to a twenty-four pounder, with a cannon ball of twenty-four pounds weight, observes, that in order to producing the same effect in penetrating a wall or making a breach in it, the weight of the ram must exceed that of the cannon ball in the proportion of the square of 1700, the velocity of the ball, to the square of the velocity with which the battering-ram could be made to impinge against the wall expressed in feet.

Eliminating this at ten feet in a second, the proportion of the weights will be that of about 2589,500 to 100, or 25,900 to 1; and therefore the weight of the battering-ram must be 546 ton. In this case, the battering-ram and the cannon ball, moving with the velocities of 10 and 1700 feet in a second, would have the same effect in penetrating any obstacle; but, as the weight of the ram was probably never so great as the above supposition states it to have been, the force of a cannon ball to make a breach in walls must exceed that of the ancient aries: but the momentum of this, or the impetus by which it communicated a shock to the whole building, was far greater than the utmost force of cannon balls; for if the weight of the battering-ram were no more than 170 times greater than that of a cannon ball, each moving with its respective velocity, the moments or forces of both would be equal; but as the weight of these ancient machines was certainly much greater than 170 times that of our heaviest cannon balls, their momentum or impetus to shatter or overturn walls and demolish buildings, was much superior to that which is exerted by the modern artillery. And since the strength of fortifications will in general be proportioned to the means which are used for their demolition, the military walls of the moderns have been contrived with less attention to their solidity and massy weight than the ancients thought to be a necessary defence against the aries; that fort of cohesive firmness of texture which refits the penetration of bodies being now more necessary than in ancient times. Nevertheless it is manifest, that even now solidity or weight in fortifications is also of material consequence to the effectual construction of a wall or battery.

The ram was frequently used in the fourteenth century. Sir Christopher Wren employed it in demolishing the walls of the old church of St. Paul's previously to his rebuilding it; and found no machine so well adapted to this purpose. See Catapulta.

Aries, in Zoology, the Linnaean and Gmelinian specific appellation of the common sheep, or kind of Ovis, with compressed lunate horns, "cornibus compressis lunatis," Fam. Suce. Syt. Nat. &c.; ovis domestica, of Ray; pecus, aries, ovis, vertex. agnus, of Pin. Aldr. Jonft. &c.; brebis et belier, of Buff.; schlau, weder, hammel, lamb, of Gen. Thierb.; and ram or common sheep, of Penn. Briff. thus defines this species: "aries lamger, cauda rotunda brevi." Dr. Shaw observes, in his Zoology, that the most prominent characters are: that the horns twist spirally outwards; that the tail is round and short; and that the body is covered with wool; but these characters, he remarks, are so greatly varied in different races, that it is hardly possible to fix on an absolute distinctive mark which shall apply to all the varieties.

Pallas, who extensive travels through the Russian empire, and especially Siberia and Great Tartary, enabled him to make many important observations on these useful animals, found what he regarded only one species subdivided into four varieties, distinguished by their tails, the form of their heads, their ears, and fleece; and hence he condemns as unfounded and fanciful the idea of making specific differences of the accidental varieties, which he imagines the education or mode of life, the climate, food, and crossing of the breed have produced in sheep, as in other animals; and in conformity with this opinion, he considers not only these varieties found in Europe, but also those of other quarters of the globe, as only accidental varieties of the same species; an opinion in which he appears confirmed by finding that they produce a prolific race, though the breed be ever so crossed; and which he thinks would not be the case were they different species. Some preceding naturalists evidently entertain very opposite sentiments on this subject; but whether we are to regard the several apparently distinct kinds of the sheep as so many species, or as varieties originating from one parent stock only, it is defensible, more highly requisite, to draw some line of discrimination between the more remarkable, or, if the expression may be allowed, more permanent varieties, by which they may be ascertained. This is confedly a matter of the utmost difficulty. Linnaeus has, we think, devised the best mode in which it can be accomplished without exciting the prejudices of naturalists, or offending with their opinions; and Gmelin has certainly improved upon it. A name and character are assigned to each variety, so far as it is deemed practicable to define them; and by arranging them all as varieties only of the common species Aries, the reader is at liberty to form his conclusions he may think proper. The varieties enumerated by Gmelin amount to ten that are very distinct, and are arranged in the following order.

1. Anglica, a.—Ovis anglica. Amoen. Acad. 4, p. 174. Hornless
ARIES.

Horned sheep of Pennant. In Lincolnshire, and other counties in England, and also in many other parts of Europe, the horned breeds of sheep are raised in great numbers. Independently of this kind being distinct of horns, the tail and fencets hang down as low as the knees; and by these characters it may be distinguished.

2. R. Pal/has. Ovis raffles, Amoen. Acad. 4. 174. This is the variety which Pallais calls ovis brachydon and ovis raffles; it inhabits Raffles, and is called the Raffles s$f$h sheep by the natives. According to Guzlin, this kind is horned, has a short tail, and is covered with short wool. Dr. Pallais acquaints us that it is not only reared throughout all the northern parts of Raffles, but likewise by the Fins and other neighbouring nations; and that some of this kind have been transported into Siberia, where they have supported themselves on some paffure, though in poor condition.

In the southern countries they are, however, in its estimation than the long-tailed and fat-tailed kinds, which are much superior to them in fat, fat, and fatness; but the eves of the former will couple readily with the ram of the fat-tailed variety, and produce an animal arger and more valuable than its mother, with a tail fleeced at the base with fat, and meagre towards the end. This short-tailed kind bears a some resemblance to the flock of Iceland. They are fleeced in fine, tail, and coarseness of the fleece; yet it differs from that breed in the essential particular, the horns, which are much smaller in proportion. The Tlcherkefian sheep, we are told, resembles it also in the form of the head, bright creat ears, and thick, of the fleece; but in texture the fleece is very different, being fine in the Tlcherkefian kind, and in the other as coarse as dog's hair; and the short-tailed kind is uniformly distinguished by the tail being about a quarter of a yard shorter than the other variety.

3. Hispanica, 7. — Ovis hispanica. Amoen. Acad. 4. 174. Spanish sheep. The spires of the horns are extended horizontally, and the wool is remarkably fine and plentiful on the animals of this breed. It is said to be peculiar to Spain.

4. Polyctera, 3. — Ovis polykteria. Amoen. Acad. 4. 174. Ovis fucconi and tricornis. Adr. Brebis a plusieurs cornes, Beher d'Ilande. Brebis d'Ilande. Buff. O. e Gotlandica Pall.; and many horned flock of Pennant. This kind is distinguished by having more than two horns; how far we are authorized to admit it as a definite, rather than an accident, variety, is doubtful. In a supplement to the article sheep in the work of Buffon, the count infers a few observations on the drawings of two Wallachian sheep, a ram and a ewe, which were sent him by Mr. Collinson, one of the members of the Royal Society of London at that time, in the course of which this animal is mentioned; and from thence we should rather conclude the variety is accidental. "The rams, ewes, and widders of Iceland," says that writer, "differ chiefly from ours in having larger and thicker horns. Some of them have three, four, or five horns; but this peculiarity of having more horns than two must not be considered as common to the whole race of Iceland sheep; for in a flock of four or five hundred, hardly three or four widders can be found with four or five horns; and when these occur, they are sent to Copenhagen as rarities. As a further proof of their being scarce, they give a higher price in Iceland for this than for the common kind." Dr. Pallais speaks of an accidental variety of the Kirkupine ram with five horns, and of another with four horns disfigured with great syphiliters. Dr. Shaw describes the many-horned sheep as a distinct variety. He observes that it occurs in the northern parts of Europe more frequently that in other regions, and that it is said to be most common in Iceland.

The horns are either three, four, or five in number; sometimes placed with great regularity, and sometimes differing in proportion and situation. A four horned sheep, with very long hairs hanging from the base, is also found in some parts of Europe; the two largest horns in this kind are straight and nearly upright on the top of the forehead, the smaller pair are set on each side of the head, and turn downwards. Gen. Zool.


6. Guinensis, 7. — Auribus pendulis, pelagricum lanis, pilis occipite prominentis, Linn. ; aries (ovis guineensis), plibus, pilis brevis pelitis, jaha longimana, auticulis longis pendulibus, Briss.; aries guineensibus t. Angol. Briss. ; ovis guineensis f. anglulis Magnus, Raj. ; montes, Assaf.; montes of Guinea, Des Murtiers; Isols derer sebegal, delier des Indus; et breves Indes, Buffon; shep of Sabauro, Shaw, r.; African sheep, Shaw's Zoöl.; Guinea sheep. Lammas, in the twelfth edition of the Syllena Nat., considered this animal as a distinct species, and assigned it the character above mentioned; "t. end pendulums, deuipa lax and hairy; hind part of the head prominent." Gmelin deems it a variety only. In point of figure, this creature is so very remarkable that it cannot easily be confounded with any other variety: "its meagre appearance, length of neck and limbs, pendent ears, and long arched or curved vifage," are strikingly characteristic; and as Dr. Shaw further observes, "it is covered rather with hair than wool, and has a pair of pendent hairy wattles beneath the neck, as in goats; the horns are small, and the tail long and lank." This kind is supposed to be most frequent in Guinea.

7. Laticaudata, 3. — Arabica planifera, Rulphi; Arabiz ovis, Alder.; ovis Tucica, Charletta.; 0vis cauda obf. 1, Lodd.; ovis laticauda. Raj. Genel.; aries (ovis laticauda) langer, cauda latifama, Briss.; montes de Barbarie on a queue, Charl.; montes de Barbarie, monton d'Arabte, Buff.; ovis laticauda, planyeroes. F. Arabien; Acad. p. 175.; ovis laticauda, planyeroes; Berndt, Pall.; ovis laticauda, planyeroes; Rauwolf; arichesches fcafb, Genf. Thier.; die hiefig sahaob, Off. Broad-tailed sheep. This kind is affected to be the largest breed of sheep in the world; and, according to Dr. Pallais and others, is reared throughout all the temperate regions of Asia, from the frontiers of Europe to those of China, in the vast plains of Tartary. All the Nomadic hordes of Asia, the Turensans, Kirgufs, Calkums, and Monguls Tartars rear it; and indeed it constitutes their chief riches, the number which they pollish being enormous. The Persians and it rear it in abundance, as likewise the Hottenots, as Kolben relates in his Travels to the Cape of Good Hope. Olbeck says, in his Journey to China, that the fat-tailed sheep is reared throughout that vast empire, and it occurs in most parts of Syria, Barbary, and Ethiopia. Pallais thinks there is sufficient evidence that it is more universally reared in different countries than any other kind. The flocks of all the Tartar hordes resemble each other in having a large yed with muggle, the upper jaw often projecting beyond the lower one, and by having long hanging ears; by the horns of the adult ram being large, spirul, wrinkled, and bent in a lunar fo m. The tails of these sheep become oftentimes fo large and heavy, as to greatly incommode the animal in walking
ARIES.

walking or grazing; they grow to the weight of fifteen, twenty, or thirty pounds, and even, according to some accounts, they have been known to increase to the weight of fifty pounds each. The sheep are, therefore, very frequently obliged to fall on behind the sheep a small board furnished with wheels on which the tail may rest, and the animal be in some degree relieved of the weight he would otherwise be obliged to bear. This kind is in great estimation, the fatty sub stance of the tail resembling marrow, and the fleece in some countries being of an exquisite fineness.

Mr. Pennant remarks that both the broad and long-tailed varieties of this kind of sheep were known to the ancients, being mentioned by Aristotle and Pliny; the former speaking of the first, and the latter of the second; one says the tail was a cubit broad, and the other a cubit long.

8. Bucharian. 3.—Auriculus magnus pendulis, pulvinari adipoa ammore, Pall. xi. 76.—Bucharian sheep, with large pendulous ears, and small fatty cushions. From Dr. Pallars we learn that this kind of sheep is reared in India, and that called by Bucharian Tartars; and it is also common in Persia and Syria. Pallars and Genchu both regard it as a mixed or hybrid breed, between the long-tailed and fat-tailed varieties; the former believes they never attain the size of either of the parents. The head is like that of the Kinguie sheep; but the muzzle is sharper like that of the Indian sheep of Buffon; the body is rather smaller than that of the Kinguie sheep; the ears large and pendent; and they have a small umbo pygion or fat lump, like that of the Tartar sheep on the Jenuf, especially when begotten by a Kinguie ram; but in general they have a tail, fat and broad at the base, with a long narrow appendage, which resembles the tail of the Tcherekian sheep. The Bucharian Tartars have a very valuable traffic with the furs of the limbs of this variety, which are excellently fine and beautiful. The same variety is likewise raised in great numbers by the Persians; and it is suspected by some writers that this is also the variety known more generally by the name of ovic macrocerus, as an inhabitant of Syria, Palærine, and various countries of Asia.

9. Longicauda, l.—Cauda longissima, Gmel. : alterum genus, Raj.; ovis arabica, Jonst.; aries (ovis longicauda) laniger cauda longissima, Briff.; ovis ovischura Tschirchelica, Pall.; Schassir, O. ear., ein ander arabisch schaaf, Gern. Thierb. Long tailed-sheep. The long-tailed, or, as the natives of Russia and Tartary call it, the Tcherkian sheep, is described as a hardy animal, with a noble air, in its native country and the south of Russia, resembling in its habits, horns, fleece, and length of tail, the Spaniel, but more particularly the English sheep. Its head is well-proportioned, and of an elegant form; ears large, horns large, even, rounded in the angles, tapering to a point, and bending forwards towards the back. The rams are seldom without horns, and the ewes have them often bent in a lunar form. The wool, though coarse, is without admixture of hair, which is perhaps but an accidental discoloration, and promises to be much microlated by crossing the breed, and rearing the animal with more care and skill. It is even known to become much finer without the assistance of art, merely from the influence of a temperate climate; it is also a more robust animal. The tail of the ram is covered with fine long wool like the Indian sheep described by Buffon, which trails on the ground so as to efface the prints made by the animal's feet on the sand, and it contains often twenty joints or vertebrae. In passing from the state of nature to that of servitude, it seems to have lost its native ferocity, together with the coarseness of its fleece. Dr. Pallars says, it is a

ARIES.

mild gentle animal, and is less degenerate in form from the argali, which he deems the parent species, than the Matoz, pygæa; but which on the other hand has retained much more of its native wildness than the Tcherkian breed; perhaps because it is allowed to range with little restraint on the wide extended plains of Great Tartary. The Tcherkian breed is reared in all the European regions of the Russian empire, situated on this side the river Ob, in the nearer Poland, and by the pastoral people of Mount Caucasus, and is commonly of a white colour. The same variety, we find in Raffé's Natural History of Asia; it is reared under the name of Badam sheep by the Arabs, and in the western parts of Mauritania. In the latter a trifling difference is observable, in the length and thickness of the tail. Long-tailed sheep are likewise reared in Morocco, and which it is supposéd belong to this variety, because they possess the distinguishing character, a long tail, although in other respects they are different. These have the same look; the head is covered entirely with hair; the ears are small, and pendulous; and the wool remarkably long. The inhabitants of Ukraine and of the countries near to the extensive traffic with the fells of the Tcherkian variety.

10. Capra. 7.—Ovis auriculis magnis pendulis, cauda magna ex adipise vix prominente.—Cape sheep of Pennant. An awkwardly formed animal with large pendulous ears, covered entirely with coarse hair instead of wool. The tail, Dr. Shaw observes, is sometimes so enveloped in fat as to be scarcely visible, the parts on each side swelling out into a pair of naked hemispheres, of such a size as sometimes to weigh nearly forty pounds. The legs are rather long; the village somewhat arched; and the horns of the male like those of the common sheep.

In the General Zoology, by Dr. Shaw, the Ovis Strepice-ros, or Cretan sheep, which Linnaeus and Gmelin deem a distinct species, is considered also as a variety of Aries. The principal varieties of the sheep, according to Dr. Shaw, are the following: Cretan sheep (ovis Strepsiceps, Linn.); many horned sheep (ovis polycerata, Linn.); African sheep (ovis guineensis, Linn.); broad-tailed sheep (ovis latiacauda, Linn.); fat-rumpled sheep (ovis Stntopolga, Linn.); of the Caucasus and Hindistan (ovis Hispanica, Linn.); and hornless sheep (ovis Anglica, Linn.).

Thus far have naturalists endeavoured to trace and define from the parent species, the more remarkable varieties into which those useful animals, appear to be divided; and if we have digressed too far from the conclusens of the Gmelinian order, by attending more fully than that writer to the collateral observations of Linnaeus, of Pallars, and other distinguished naturalists, who have entered minutely into the same inquiry; on a subject of so much importance, it is at least excusable. In the present instance, it is incumbent only to ascertain the principal varieties, so far as the characters assigned to them may justify: to dwell on the intermediate varieties into which these varieties have again degenerated is needless; by education or culture, the effects of climate, food, and crossing breeds, these are now extended beyond the ability of the naturalists to ascertain with accuracy; and it would be well but tend to obscure the subject, were we to enlarge upon them. To the agriculturist, or the practical farmer of this country in particular, the history of the first variety, and perhaps one or two more, is obviously useful; but to treat on these would alone extend this inquiry to undue lengths. Nor does it with strict propriety fall under the article Aries; it is a subject that deserves the fullest investigation, and elucidation the most ample; and will be duly attended to in its proper article, sheep, or ovis. See Sheep, and Ovis.
ARI

ARIKILL, in Geography, a small creek which runs northerly into Mohawk river, two miles and a half west from Schenectady river in New York.

ARIES, in Zoology, a name given to the Gmelinian Camillus Aracosmus, or Peru camel, in Neumann's Natural History. This species is called the sheep of Peru, muttons, or muttons de Perou, by Feuille, Ficquier, and other writers.

ARIES, in Entomology, a species of Lepidura, in the Fauna Svecica, and Systema Naturae Linneus, Historiae des Insectorum of Geoffroy, and British Insects of Doovan. Degeer arranges it with the Cerambix, under the specific name of quadrinotatus; Scopoli calls it Ste- nocrorus arieti; Fabricius makes it a CALLIDUS; and Gmelin a Cerambyx in his family of that name, (palpis clavatis, CALLIDIA).

This is a very common insect in England; and probably throughout the other parts of Europe is not less frequent. It is found in gardens, and is easily distinguished from other species of the same genus. The thorax is black; wing-cases black, with four yellow transverse bands; the second of which is arched and curved upwards; and the legs are ferruginous. Fabr. Gmel. &c.

ARIETIS, a species of Vespa, that inhabits South America. The colour is in general black; petiole of the abdomen, and the legs rufous. Fabricius.

ARIETTA, in Music, the diminutive of Aria. The French have a very confused notion of the meaning of this term, and call by the name of ariette the capital song of a musical drama, and which the Italians term aria d'al- l'ita, generally composed to display the powers of a principal performer, in point of execution. Arett, every where but in France, has been always understood to imply a little short air, a cavatina. "Now we begin to emerge from barbarism (says M. Guignéme) why do we continue to speak like barbarians?"

ARIETUM Levatio, in Antiquity, a kind of sportive exercize, probably the same with that which in later times is called, "running at the quintain."

ARIETUM, in Ancient Geography, a town of India, suppos'd by major Rennel to be Ijab, in the modern Cabul, in the route of Tamerlane, near the southern mountains. Alexander found it burnt and abandoned, according to Arrian.

ARIGENUS, the capital of the Videcafii, situate in the northern part of Gallia Lyonnesis. Ptolemey.

ARIGNA, in Geography, a place situated amidst valuable coal and iron mines in the county of Lettrim, Ireland, at which great iron works have been lately established. As soon as the completion of the royal canal opens a communication between Dublin and the Shannon, it is to afford an easy conveyance of the articles to market, great advantages are expected. Dr. Beaumont.

ARIGNANO, a town in the province of Italy, in the duchy of Tuscany, on the river Arno, between Florence and Arezzo.

ARIGNAY, a town of France in the department of Upper Garonne, and chief place of a canton in the district of St. Gaudens, 5 leagues W. of Rieux; and 3 N.N.E. of St. Gaudens.

ARIH, or ARIANS, in Ancient Geography, a denomination by which several people of Asia were distinguished. Thus, the Arian or Aryan, were the inhabitants of Aria, in the vicinity of the Sogdians, according to Herodotus: he also says that Aria or Aryan was an appellation commonly given to the Medes. Arii were a people placed by Ptolemey in Arabia Felix. ARIH, or Arians, were also a people of Germany, occupying the first rank, according to Tacticus, among those who were denominated Lygoian. They were more valiant, and also more fierce, than most of the other Germans; and with their ferocity they blended a considerable degree of cunning. They wore black bucklers, painted their bodies, and made their attacks in the night.

ARILLUS, in Botany, the feed-cost of the permanent hulk that invests the feed. Some have objected to this term, as improper; but Dr. Smith (Linn. Trans. vol. v. p. 205.) is of opinion, that it expresses the true nature of the tunic, to which it is applied, much better than the hypothetical one of meclram, the erroneous one of capsule, or even the analogous denomination of corolla.

ARIM, in Geography, a town of Afa, in India, suppos'd by the calern geographers to be at an equal distance from the columns of Hercules on the west, and those of Alexander to the east, and therefore used by them in reckoning the longitudes.

ARINA, a town of Japan, in a country of the same name. N. lat. 31° 45'. E. long. 129° 24'. The Strait of Arina lies between the small island of Nangayuma, and that of Xince.

ARITI, in Ancient Geography, a mountain of Cilicia, or of Lydia.

ARIMANIAM, or AHRIMAN, in the Persian Theology, denotes the devil or the principle of evil, which, as some fay, co-existent from eternity with Omrufd or Orominds, the principle of good; each of them possessing the powers of creation, but each disposed, by his unchangeable nature, to exercise them with different directions. Others say, that Omrufd first sublustrated alone, but being dissatisfied with a solitary existence, and having no power to oppose him, Ahriman was produced. Perhaps these divinities were originally, like Mitra, merely human beings; the one, a good prince, who had distinguished himself by rendering important services, civil or military, to his countrymen, the other, a tyrant, who had been the cause of grievous public calamities. Ahriman was not called by the Persians a god, but an evil daemon; and they always wrote his name with the letters inverted. This rude and vulgar superstition, which had no other object than individual men, was afterwards corrected by philosophy, and changed into the worship of two spiritual beings, one the author of good, the other of evil. The system which supposes two such principles in nature, seems to have been held by the Persian Magi, before the time of Zoroaster; but it does not appear, how far they suppos'd them dependent upon the supreme divinity. Zoroaster, however, certainly taught the doctrine of their inferiority to the first parent of all things. According to this system the principle of good, it is said, is eternally absorbed in light, and the principle of evil eternally buried in darkness. The wife benevolence of Omrufd formed man capable of virtue, and amply provided for him the means of happiness. By his vigilant providence, the motion of the planets, the order of the seasons, and the temperate mixture of the elements, are preserved. But the malice of Ahriman has long since pierced Omrufd's egg, or in other words, violated the harmony of his works. Since that fatal irruption, the good and evil are blended; the rankest poisons spring up amidst the best salutary plants; deluges, earthquakes, and conflagrations attack the conflict of nature; and the mind, as well as the dispositions of man, is perpetually agitated with vice and misfortune. Ahriman's power, however, is subject to limitation and restraint: Omrufd will ultimately triumph over the furious malice of his rival; and at that decisive period, Ahriman and his followers, disfavored...
ARI

disarmed and subdued, will sink into their native darkness; and virtue will maintain the eternal peace and harmony of the universe. The modern Persians extol the Ormuidi into the highest eminence in the scale of mankind, whilst they degrade Ariman into an infernal region of infernal spirits. Their defile of pleasuring the Mahometans, says Mr. Gibbon (Decl. and Fall of the Rom. Emp. vol. i. p. 322, Svo.), may have contributed to refine their theological system.


ARIMANNI, in Antiquity, the denomination of a class of perfons employed in agriculture in the middle ages, who were free men. Among the writers of the middle ages, they were called alio conditionales, originarii, tributati, &c. They seem to have been perfons who sold their small alodial property of their own, and, besides that, cultivated some farms belonging to their more wealthy neighbours, for which they paid a fixed rent, and bound themselves likewise to perform several small services, such as ploughing a certain quantity of their landlord’s ground, afflicting him in harvest and vintage work, &c. It does not appear whether these Arimanni were removable at pleasure, or held their farms by lease for a certain number of years. The former, says Dr. Robertson (Hist. Ch. V. vol. i. p. 276, Svo.), if we may judge from the genius and maxims of the age, seems to be most probable. These perfons, however, were considered as free men in the most honourable sense of the word. They enjoyed all the privileges of that condition, and were even called to serve in war; an honour to which no slave was admitted. Nevertheless, their condition was greatly superior to that of slaves, such was the spirit of tyranny which prevailed among the great proprietors of land, and so various their opportunities of oppressing those who were settled on their estates, and of rendering their condition intolerable, that many free men, in despair, renounced their liberty, and voluntarily surrendered themselves as slaves to their powerful masters, who might thus become more immediately interested to afford them protection, together with the means of subsisting themselves and their families.

ARIMANON, in Ancient Geography, a city of refuge beyond Jordan; probably the famous Ramoth in Gilead. Jos. xvi. 38.

ARIMANON, in Ornithology, the name given by Buffon to that species of Peitacas, since called by Gmelin taitianus, and Otahitian blue parrot by Dr. Latham. See Taftianus.

ARIMANTIS, in Ancient Geography, a town of Africa, in the Pentapolis. Ptolemy.

ARIMARA, a town of Afia, in Syria, situate on the Euphrates. Ptolemy.

ARIMASPI, a people who inhabited the northern part of European Scythia, called Scythia Arimaspae, which lay eastward joining to Scythia in Asia. They were so called, it is said, from the Scythian Arima, one, and Spae, eye; not because they had but one eye, as some of the ancients absurdly believed, but rather, as Bochart conjectures, because they were such excellent archers, at which exercitium it is necessary to shut one eye; that the nick-name of one-eyed was given to them on that account. According to Diodorus, who places them in Asia, to the south of the Oius, they were called Evergetes, because, in an expedition of Cyrus, when his army was so distracted with famine, that the soldiers were reduced to the necessity of eating their comrades, this people supplied them with 3000 carriages of provisions. Steph. Byz. ascribes the appellation to the kind treatment which they afforded to the Argonauts, when they travelled through their country.

ARIMATHEA, or Ramathia, a city of Paleolne, Vol. II.

placed by Jerome between Lydda and Joppa; but M. D’Anville places it a little to the south-east of Lydda and Diodorus. Modern travellers speak of a city called Ramathia, between Joppa and Jerusalem. The name Ramathia, whence Arimathea is derived, signifies height; but this place, which lay west of Jerusalem, was very different from Ramathathaim, Samuel’s country (1 Sam. i. 1), which was north in the mountains of Ephraim, and was probably the same as Ramah, near Bethel, four leagues distant from Jerusalem. Arimathea was the city of Joseph, the honourable counsellor, mentioned Luke, xxii. 50. The ancient Arimathea, says Volney (Travels in Egypt and Syria, vol. ii. p. 333.), is now Rama, which is one-third of a league to the southward of Lydda, or the present Loudi, and is in as ruinous a state as Loudi itself. Within its boundaries nothing was found but rubbish; and yet the aga of Gaza reudes here in a feudal, the floors and walls of which are tumbling down. He maintains about 1000 holmen, and as many Barchy soldiers, who are lodged in an old Christian church, the nave of which is used as a stable, and in an ancient kan, which is disused with them by the scorpions. The adjacent country is planted with lofty olive trees, disposed in quincunxes, which are decaying. Amidst these plantations are every where found dry wells, mouldering cisterns, and large vaulted referraries, which prove that, in ancient times, this town must have been upwards of a league and a half in circumference: at present it fearely contains 200 families. The manufacture of the place is soap, which is sent into Egypt, and the spinning of cotton, which is chiefly purchased by two French houses established there. The aga built here, in 1784, a windmill, completed after the plan and under the direction of a Venetian carpenter; and this is the only windmill observed by Volney in Syria or Egypt, though it is said to have been originally invented in those countries. The only remarkable antiquity at Rama is the minaret of a ruined mosque, on the road to Yafa, which appears, by an Arabic inscription, to have been built by Saif-el-din, sultan of Egypt. In the adjacent plain between Rama and Gaza, there is a number of villages, consisting of huts built of dried mud, which, like their inhabitants, exhibit every appearance of poverty and wretchedness. The only fuel is dung kneaded into cakes, and dried in the sun. The environs of these villages are fown, at the proper season, with grain and water melons; and the reed is a defect, abandoned to the Bedouin Arabs, who feed their flocks in it.

ARIMINUM, RIMINI, a town of Italy, in Umbria, on the coast of the Adriate, at the mouth of a river of the same name, and south east of a small river called Rubicon. Strabo (1. v.) ascribes its foundation to the Umbri, who inhabited the country before the Senones. The Romans, when they became masters of it, sent a colony thither A. U. 485, and a new colony was sent thither by Augustus. This is the first town of which Caesar took possession, after passing the Rubicon. It is now in a state of great decay; but there are some monuments of antiquity that claim the attention of the curious traveller. In the market-place there is a kind of stone pedestal, with an inscription, declaring, that on it Caesar had fixed and harangued his army; but the authenticity of this is not ascertained to the satisfaction of antiquarians. The harbour is now choked with sand; and the brick tower, which formerly served for a faro or light-house, is surrounded with gardens; but they fill to the coast the spot where St. Anthony is said to have fixed where he preached to the fishes. N. lat. 44° 8’. E. long. 13° 46’. Keyler, vol. i. p. 223. Majorca. Travels, vol. i. p. 276. In the collection of Dr. Hunter there was a medal of bronze, which Dr. Coome ascribed to this city.
ARINE, GIAH, a town of Africa, in Mauritania Ce-
farenticus.

ARINGA, in Ichthyology, a name given by Paulus Jo-
vius and others to the hering, Gomphus harangus of Linnæus.

ARINGAN, in Geography, a town of the province of
Tranoxana, belonging to Sannacand.

ARINTHO, a town of Frigia, in the department of
Jura, and chief place of a canton in the district of Lams-
Sautn, 23 leagues south of Orgelet. The place contains
15,191, and the canton 16,023 inhabitants: the territory in-
cudes 220 kilometers, and 47 commune.

ARNUS, in Entomology, a species of Papilio (Pb. orb.)
that inhabits Evrope. The wings are without tails; above
brown, dark blue, with black spots; beneath grey, with
ocellated dots. Fabricius, Donov. &c. The male has a
single black spot on the anterior wings, and a row of mar-
ginal spots on the posterior ones; the female has about six
black spots on the disk of the anterior pair.

ARJONA, in Geography, a small town of Spain, in An-
dalusia, on the river Prio, between Juen and Andujar.

ARISO, in Myth., an adjective used adverbially, im-
plies, according to Rouffeau, a kind of melody bordering
on the majestic style of a capital air.

ARIOSTI, ATTILIO, in Biography, a native of Bo-
logna, was designed for the priesthood, but devoted him-
self to the profession of music, and became an eminent mu-
ical composer and performer. He exercised this profession
at Bologna and Venice, and also in Germany, where in
1700 he composed a Ballet, and an Opera called "Attis," for
the electoral princes of Brandenburg, to whom he was
appointed "Maestro di capella." Having continued for
some years in Italy and Germany, and distinguished himself
by his composition of operas and other pieces, and also by
his performances on the violoncello, and viol d'amore, an
instrument either invented or much improved by himself;
he came to England in 1716, and played on his new instru-
ment, the first of the kind heard in this country. When
the Royal Academy of Music was established in 1720, he
was employed to compose several operas: and he formed
one of the celebrated musical triumvirates of the time with
Handel and Bononcini: but both Attilio and Bononcini
were obliged to give way to the superior genius of Handel.
The former, without much invention, is said to have been
a perfect harmonist, and to have treasured up much good
music in his head. By way of relieving his necessities,
he published a book of canatas by subscription, and left Eng-
land; after which his history is not known. Burney's Hist.

ARISTO, LUDOVICO, a celebrated Italian poet, was
born in 1474, at the castle of Reggio in Lombardy, and
defended of a family allied to the dukes of Ferrara. At
an early age he manifested his poetical genius by a drama
on the subject of Pyramus and Thisbe, which was acted by
his brothers and sisters; and though his father for some
time endeavoured to prevail with him to study the law,
which he seemed to have reluctantly professed for some
years without making any great progress, he was at length
allowed to indulge his own inclination. At his father's death,
when he was 24 years of age, he found himself in embar-
sassed circumstances, and was almost induced to abandon
his favourite studies. But being invited to the court of
Alphonso duke of Ferrara, he became the particular fa-
ourite of the duke's brother, the cardinal Hippolito of
Este, and maintained his attachment to him, with some
occasional interruption, as long as he lived. Having re-
covered and much improved his early knowledge of the
Latin language, Cardinal Bembo wished him to employ it
in his compositions rather than the Italian; but Ariosto de-
nied it, alleging, "that he preferred being the first of Italian
writers, to being the second or third among the Latin ones;"
and also adding, "that his genius was most inclined to the
former." After the death of Hippolito, he was patron-
ized by his brother Alphonso, who was much delighted
with his conversation, and enabled by his bounty to build a
small
ARI

small house at Ferrara, where he employed himself in those studies and compositions which made his name immortal. This retirement, in which he lived with the plainness and simplicity of a philosopher, and where he enjoyed ease and liberty, he preferred to any other situation which he might have obtained under the offered favour of Pope Leo X. and several distinguished princes and cardinals. When he was asked why he had not built his house in a more magnificent manner, and more suitable to the noble descriptions which he had given of sumptuous palaces, beautiful porticoes, and pleasant fountains, in his Orlando Furioso, he replied, "that words were combined together with less expense than flowers." Upon his door he inscribed the following verse:

"Parsa, sed apta milii, sed nulli obnoria, sed non Sordida, parta mea sed tamen are domus."

Thus translated by Sir John Harrington in his "Life of Ariosto," p. 420:

"This house is small, but fit for me, but hurtful unto none, But yet not fluttish, as you see, yet paid for with mine owne."

Ariosto was so attached to a plain and frugal mode of life, that he says of himself in one of his poems, "that he was a fit person to have lived in the world when acorns were the food of mankind." But, though he was fond of retirement, he enjoyed the friendship of the most eminent men of learning of his time, who highly esteemed him, and whom he mentions with great respect in the last canto of his "Orlando Furioso." However, he was chiefly attached by obligation and friendship to the house of Este; and the adulation he bestowed upon it in several parts of his works would have subjected him to the charge of insincerity and servility, if it had not been sanctioned by the general practice of his age and nation. For the glory of his country he was ardently solicitous; and he often laments the injury and disgrace which Italy suffered under the dominion of foreigners. In his general behaviour he was affable and condescending; and, on particular occasions, he manifested a becoming degree of spirit and resolution, even when he thought himself ill-treated by princes of the highest rank. His charity and integrity are said to have been exemplary: to his mother he was singularly dutiful and affectionate; and heaved her the greatest respect in her old age. The writers of his life record several instances of his attachment to the fair sex; and it is said, that he was privately married to his mistress Aleflandra, by whom he had two illegitimate sons; but that he did not acknowledge her as his wife, for fear of losing some ecclesiastical benefices which were incompatible with a married state. His constitution was delicate and infirm; and, notwithstanding his temperance and general abstinence, his health was often interrupted. He bore his last sickness with uncommon resolution and serenity; affirming, "that he was willing to die on many accounts, and particularly because he found that the greatest divines were of opinion that we shall know one another in the other world," and he observed to those who were with him, "that many of his friends were departed, whom he defied to visit, and that he thought every moment tedious till he gained that happiness." He died at Ferrara, on the 6th of July 1534, according to Sanovino; and on the 8th of July 1533, according to Sir John Harrington; at the age of 59 years; and he was interred with singular tokens of respect in the church of the Benedictine monks, who, contrary to their custom, attended his funeral. An epitaph, written by himself, was inscribed upon his tomb. His death was regretted by all who knew him, and particularly by the men of letters, who honoured his memory in Latin and Italian poems. Sir John Harrington quotes his account of him in these words: "his learning, his good behaviour, his honesty, made him both beloved of all good men in his life, and bewailed of all honest men in his death; so as methinks, reading over his life, I could find in my heart to wish (faving for some very few things),"

"Sic mihi contingat vivere, sique mori."

The works of Ariosto, who, as Dryden says, with all his faults, must be acknowledged a great poet, are fates, comedies, sonnets, fables, small pieces of poetry, and his great heroic poem, called "Orlando Furioso," on the composition of which he bestowed his principal attention, and which manifests the distinguishing excellence of his poetical powers. The author began this poem when he was about 30 years of age; and whilst he was engaged in the composition of it, he rofe sometimes at one or two o'clock in the morning, both at home and abroad, and continued to write as long as he found himself properly disposed. The poem itself was singularly popular at its first publication, even among the lowest classes; and inspired a very extraordinary degree of enthusiasm. Such were the reputation and authority which Ariosto acquired by it, that he commanded respect among the most licentious and abandoned. To this purpose it is related, that when he was governor of a province in the Apennines, which was overrun with smugglers and banditti, his influence was sufficient to prevent for some time the tranquillity of the district over which he presided. Once, however, as he wandered in a fit of reverie to some distance from the fortresses which he inhabited, he was surprized by a party of free-booters, to one of whom he was known as the author of "Orlando:" as soon as this information was communicated to the rest, they fell at his feet, conducted him to the castle; and, at parting, told him that they respected him as governor on account of his character as poet. To such a degree was Ariosto himself charmed with his own verse, and so much did he inculc المسيrcrino i his manner of reading, that he was always disquieted if he heard his own writings repeated with an ill grace and accent. Accordingly, it is said, that, when he accidentally heard a potter singing a stanza of his "Orlando," in an incorrect and ungraceful manner, he was so incensed, that he struck him on the head, and in his rage, threw the stanza into his lap, and broke several of the pots which were exposed to sale; when the potter expostulated with him for this unprovoked injury, Ariosto replied, "I indeed have broken half a dozen of your pots, which are not worth so many half-pence; and you have spoiled a stanza of mine, which is worth a considerable sum of gold." A similar tale has been told by Piatarch of Philoxenus, and applied also to Caiusden. The "Orlando Furioso," after ten years labour, was published at Ferrara in forty cantos, in 1516; and the author gave it complete, in forty-six cantos, in 1533. This poem has been very differently appreciated by different writers, from the time of its first publication to the present day. Whilst some have unduly extolled it, others have degraded it below its just rank. A French writer prefers it to the Odyssey of Homer, and Sir John Harrington compares it with the Aeneid of Virgil; and in answer to the objection, that Ariosto wants art, and recedes from the example of Homer and the precepts of Aristotle, he observes, that what was proper in Homer at the time when he wrote, would now appear otherwise from the different circumstances of the age, and that with regard to the rules of Aristotle, he followed them very skilfully. Some have preferred Ariosto to Tasso; whilst others have regarded the latter as much superior to the former, and have adopted the common saying, that "Ariosto's tomb
ton b was in Tifs." The "Orlando Furioso," says a biographer of approved judgment and taste (see Aiken's Gen. Dig.), "is a tissue of adventures in love and sense, lightly, and often not at all, connected by reference to the principal hero, and formed upon the fictitious manners of chivalry, with all its accompaniments of enchantments, transformations, and supernatural events of every kind, and not without a mixture of moral allegory: it has its tragic and comic faults, its serious and burlesque; and the traditions from the one to the other are often immediate: thus, as a whole, nothing can be more wild, incongruous, and absurd; and it might be thought profligating the dignity of epic poetry to belittle the name on his performance, or put it in parallel with any of the great works of that class. Yet the inexhaustible invention, the boundless variety, the wonderful facility, and the profusion of real poetical beauties of the most different kind, have ever rendered it a most attractive piece; and as far as the ends of poetry are to excite admiration or pleasure, it certainly has attained them. Many even of the most cultivated critics are inclined to prefer its wild charities to the more regular and finished beauties of Tasso; and perhaps, in general opinion, it still stands as the full specimen of Italian heroic poetry. It is not free from the hankering faults of its age, and has some singular freaks of ridicule upon topics thought facetious. But by much the greater part can offer the delicacy of taste only, and not that of morals." Editions of this work have been numerous, and in various countries; and translations, and imitations, of part or the whole, in different languages, have been very frequent. Mr. Hoole's translation in English verse is much esteemed. Gen. Dict. Nouv. Dict. Hillor.

ARIPO, in Geography, a fort in Asia, on the western side of the island of Ceylon, at the mouth of the river Cemenda.

ARIS, a town of Polis Prussia, 74 miles south-southwest of Konigsberg.

ARIS, in Ancient Geography, a river of Greece, in Melfina, on the banks of which was built the city Thuria. Pantheon.

ARISABUM, a town of India, on the other side of the Ganges. Ptolemy. Some have thought that this is the modern Asa.

ARISARUM, in Botany. See Ambrosinia and Arum.

ARISBA, in Ancient Geography, a town of Asia Minor, in the Troade, founded, says Steph. Byz., by the Mitylenians, but according to Photius, by the Miletians. It was a little four-road of Abydos; the Trojans took it before the ruin of their city, and preferred it as an ally. Alexander's army, after passing the Hellespont, encamped near this city, when he went to visit the ruins of Troy. This city fruck imperial Greek medals in honour of Trajan.—Alfo, a town of the island of Lesbos, ruined by an ancient earthquake, according to Pliny.—Alfo, a town of Greece in Bocota.

ARISBUS, a river of Thrace which ran into the Hebrus. Strabo.

ARISCH. Abu, in Geography, a principality of Arabia, is properly a part of Tebaha, and stretching along the Arabian gulf northward from Loheja, for the space of two degrees; like the rest of Tebaha, it is every where dry and barren, except in parts that are watered by the rivers from the mountainous regions of Yemen. The remarkable places in this principality are the capital, known by the same name, which is encompassed with walls, and is the seat of the sheikh, twenty leagues north of Loheja, in N. lat. 16° 45', and E. long. 43° 15'; and the sea-port town of Gezan, a day's journey from Abu Arisib.

ARISE, licence quo, in Law. See Licence.

ARISH, El, in Geography, a town of Egypt, near a gulf of the Mediterranean to which it gives name, in the road from Cutch to Goza, 41 miles south-south of Cairo, and 115 miles northwest of Suza. The town is situated three leagues from the sea, in a sandy country; and it is the last place where water, which can be drunk, is to be found, until you arrive at Sultana.

ARISI, a Persian long measure, containing 3197 English feet. Arith. Tab. 32.

The Persian arish, according to Mr. Graces, is a long measure equal to 365,314 English inches.

ARISI, rice, an Indian word, which does not properly signify the plant which produces the rice, but the seed itself when cleaned from its husk, and rendered fit for use. The Indians call it anit in that state; but in the husk, and upon the plant, they call it nello.

ARISTA, in Astronomy. See Spica Virginis.

ARISTA, in Botany, a long needle-like beard, that grows out from the hulk of corn, or grass; called also the arista.

ARISTA, in Ichthyology. See Aterina.

ARISTENETES, in Biography, a Greek pagan writer of the fourth century, was the friend of Libanius the rhetorician, and mentioned with respect by Ammianus Marcellinus. He perished in an earthquake that happened at Nicomedia in the year 355; and left two books of amatory epistles, written with tercets, elegance, and tenderness, and containing quotations from Plato, Lucian, Philodorus, and others. An edition of these epistles, with notes, was published by Mercer, at Paris, in 1595, 8vo. and reprinted in 1600 and 1610. Fabr. Bib. Græc. l. ii. § 10. t. i. p. 432.

ARISTEUM, in Ancient Geography, a town of Thrace, built on the summit of mount Hæmus, mentioned by Pliny, and Diódorus Siculus.

ARISTEUS, in Mythology, the son of Apollo and the nymph Cyrene. He is said to have communicated to mankind the art of curdling milk, of managing bees and forming hives, and of cultivating olives. At Thebes, he married Autonoë the daughter of Cadmus, by whom he had a son, the unfortunate Adon, and a daughter named Macria. After the death of his son, he removed to the island of Cea, where he restrained the progress of a destructive plague, and erected an altar to Jupiter, and offered sacrifices both to him and to Caeaca, or the dog-star; by whose favour, the Egyptian winds were caused to blow, and to mitigate the heat that had been so fatal; and from this time, it is said, these winds have been regular every year for forty days. From Cea, he palced over to Sardinia, which he embellished, cultivated, and peopled; and thence he proceeded to Sicily, and imparted his secrets to the inhabitants of that island. One of his principalstations was Arcadia, whither, according to Pindar, he removed from the island of Cea; and in Arcadia he taught the inhabitants the method of stockling their hives with bees; and hence Virgil (Georg. l. iv. v. 283), gives him the name of Arcadian. He afterwards went to Thrace, where Bacchus admitted him to the mysteries of the Orgies, and imparted to him a variety of important and useful discoveries. This fabled benefactor of mankind lived for some time near mount Hæmus, and then disappeared. His numerous services were recomposed both by Greeks and Barbarians, with divine honours; and the gods are said to have placed him among the stars, so that he became the Aquarius of the zodiac. He was sometimes called Agreus or Nomius. Huetius has curiously discussed the resemblance of the fable of Aristeus, to the true history of Moés. Gen. Dict.

Aristeus,
ARISTARCHUS, in Biography, was also an eminent Geometer, of Crotonia, who lived before Euclid. 330 B.C. Pappus (Mathem. Collect. in propm. lib. vii.) speaks of him as writer on cones, respected by Euclid. This Aristarchus was a disciple of Pythagoras, and succeeded him in the care of his school after his death, and continued to teach his doctrine for thirty-nine years. Fabr. Bib. Graec. v. i. p. 456.

ARISTANDER, a famous foot-flyer, was a native of Telmessus, a city of Asia, whose inhabitants were said to be naturally endowed with the gift of divination. He was first employed in the court of Philip of Macedon, and on this monarch dreamed that the queen's womb was closed with a seal, on which was engraved the figure of a lion, and he interpreted it as signifying, that the son of whom the queen was pregnant would have the heart of a lion. He accompanied Alexander in his Persian expedition, and in order to answer the purposes of policy or superstition, he performed several mysterious rites before the famous battle of Arbela. On this, and also on several other occasions, he predicted victory, and perhaps contributed to obtain it; for it is said, that by the success of his art, he gained a very considerable degree of influence not only over the credibility of Alexander's soldiers, but over the mind of Alexander himself. Q. Curtius, i. iv. c. 2, 6, 13, 15. i. v. c. 4, l. vii. c. 7. l. ix. c. 4. Plut. in Alex. Oper. t. i. p. 684. Arrian. l. i. c. 8. Gen. Dict.

ARISTARCHUS, a celebrated Greek astronomer and philosopher, was born at Samos, and flourished about the middle of the third century before Christ. There has been a considerable difference of opinion about the precise time of Aristarchus; according to Eratosthenes, he died at the age of eighty-one, in the first year of the 125th Olympiad, or 280 years before Christ. Playfair, with Plutarch, who makes him contemporary with Apollonius, the successor of Zenodorus, refers him to the 190th Olympiad, or 264 years before Christ. But the time in which he flourished may be more satisfactorily ascertained by the testimony of Ptolemy, who informs us, that he made an observation of the full tides in the fiftieth year of the first period of Calippus; and supposing with Blair, this period to commence in the year of Darius's death, or the 330th before Christ, the fiftieth year must have been the 280th before Christ. Aristarchus is well known to have maintained the modern opinion with regard to the motion of the earth round the sun, and its revolution about its own center or axle. To this purpose Archimedes says in his " Areareus," (apud Opera, p. 449. ed. Rival.) that "Aristarchus the Samian laid down a certain hypothesis, from which it follows, that the world is much larger than what we have hitherto; for he supposes that the fixed stars and the sun are immovable, and that the earth is carried round the sun in the circumference of a circle." The editor remarks, that in this passage Archimedes seems to intimate that Aristarchus was the first author of this opinion. Sextus Empiricus also (Adv. Mathem. p. 410.)`t, in speaking of the hypothesis of the earth's motion, plainly infinuates that Aristarchus had been the first discoverer of it. Plutarch (Quaest. Plat. apud oper. t. ii. p. 1006.) observes, that this opinion was taught hypothetically by Aristarchus, and dogmatically by Seleucus. There is also a passage of Plutarch (De facie in orbe lune. Opera, t. ii. p. 935.), which, with the correction proposed by Gaffendiis, and adopted by Menage, Fabricius, and Bayle, affords another decisive testimony to prove, that the opinion of the motion of the earth was held by Aristarchus. "Being not an accuser against us, as Cleanthes thought the Greeks ought to have done against Aristarchus the Samian, as a disturber of the foundation of the world, because he endeavored to explain the celestial appearances on the supposition that the heavens stand still, and that the earth is carried in an oblique orbit, and at the same time revolves about its own axis." Aristarchus also taught, that the annual orbit of the earth is but merely as a point, compared with the distance of the fixed stars. His method of determining the distance of the sun from the earth, was by means of the dichotomy of the moon (see Dichotomy); and in this way he concluded, that it contained at least eighteen or twenty times that of the moon from the earth. He also found by methods, the detail of which would be too tedious, that the diameter of the moon bears a greater proportion to that of the earth than that of 43 to 108, but less than that of 19 to 60, so that the diameter of the moon, according to his statement, should be somewhat less than a third part of that of the earth. He also estimated the apparent diameter of the sun at the 720th part of the zodiac. Besides his astronomical discoveries, Aristarchus invented a peculiar kind of fun dial, mentioned by Vitruvius, i. ix. c. 9. The only work of this ancient astronomer now extant is a treatise "On the magnitudes and distances of the sun and moon;" first published by Vallaus, at Venice, fol. in 1498; afterwards by Wallis, with his own notes, and Commandine's version, at Oxford, in 1682, 8vo.; and again in Wallis's works, vol. iii. A fragment of this work is introduced by Pappus in his "Coll. Mathem. i. vi. prop. 43. p. 135. Another work "On the mundane sylphem," has been ascribed to Aristarchus, but its generally understood to be a spurious work, written by Roberval. Gen. Dict. Mountula. Hist. Mathem. tom. i. p. 218. Fabr. Bib. Graec. l. iii. c. 5. § 14. t. 2. p. 89.

Aristarchus, a Greek grammarian, was a native of Samothrace, refided chiefly at Alexandria under Ptolemy Philomotor, who intruded him with the education of his son, and died in the fiftieth year of the 125th Olympiad, or the 156th year before Christ. To Aristarchus the ancient commentators upon Homer attribute the division of the Iliad and Odyssey into books, according to the order and number of the Greek letters. He was a rigid critic, and excelled his talents in this way upon Homer, Pindar, Aratus, and other poets. Erafmus (Adag.) says, that it was his practice, in revising Homer, to mark those verses which he thought unworthy of him with an obelisk, and to condemn them as spurious, and to distinguish those which he thought particularly excellent with an asterisk. Cicero alludes to this practice in two familiar epistles, viz. Ad. Fam. lib. iii. ep. 11. lib. ix. ep. 10. Oper. t. vii. p. 95. p. 250. ed. Olivet. Cicero in his oration against Piso, (Oper. t. vi. p. 213.) uses the name of Aristarchus proverbially for a severe critic, when he tells Piso, that he is not an Aristarchus to affix a mark to a bad verse, but a Phalaris to assault the perfon of the poet. Thus also when he requests his friend Atticus to examine his orations with strictness, he calls him his Aristarchus. (Ep. ad Att. l. i. ep. 14. t. viii. p. 61.) Horace also suggests the fame idea in his Ars Poetica, v. 445. &c.

"Vir bonus et prudentus verus reprehendit inercias,
Culpabit duros, incompitos allinet strum
Transverco calamo signum: ambitiofa recidet
Ornamenta; parum claris lucem dare coget:
Arguet ambiguus dictum? multa notatibus:
Fiet Aristarchus: nec dicet, cur ego amicum
Offendam in inspis?

"A friendly critic, when dull lines move flow
Or harshly rude, will his relentment show;
Will mark the blotted pages, and efface
What is not polished to its highest grace;
Will prune th' ambitious ornaments away,
And teach you th' obscure to pour the day:

Will
A R I

Will mark the doubtful phrase with hand fierce,
Like Arilarchus, rig'rous and sincere:
Nor say, For trifles why should I displease
The man I love?"

Arilarchus was of a contentious temper, and had frequent disputes, at Pergamus, with Crates the grammarian. In the decline of life he was droppical, and fought a remedy by slandering himself to death, which happened in the ille of Cyprus. His school of grammarians and critics sullibated at Alexandria for several ages after his time, and produced no less than forty grammarians. Suidas says, that he wrote three books of commentaries; and therefore the apology which he is said to have made for not writing, was not very proper: "I cannot write what I would, and I will not write what I can." Suidas, Gen. Diæ. The name of Arilarchus has given title to several books.

A R I

Aristarchus, a disciple and companion of the apostle Paul, accompanied him to Ephesus, and here his life was in danger, and followed him in his subsequent travels. He was originally a Jew of Thessalonica. Acts xix. Col. iv. 10. Philom. 24.


Eff. Gen. Char. Pet. fix; style declinate; stigma funnel-form, gaping; capii. inferior, with many seeds.


Murea africana, Murr. Syll. Veg. This is a small shrubby rooted plant, rising to fix or six inches in height; leaves grass-shaped, two or three inches long, bent forwards, forming a tuft at the root; flowers blue, with a white eye. A native of the Cape of Good Hope, whence it was introduced into the Kew garden by Mr. Maffon, in 1774.

ARISTEAS, in Biography, a pagan officer under Ptolemy Philadelpbus, king of Egypt, about two hundred and fifty years before Christ. To this person is ascribed a Greek work, still extant, entitled "An History of the interpreters of scripture," or of that Greek translation of the Hebrew scripture which we call the Septuagint. The account which Aristeas gives is briefly as follows. Whilst Demetrius Phalererus, a noble Athenian, was employed by order of Ptolemy Philadelpbus, in collecting books from all nations for the royal library at Alexandria, he was instructed to procure a copy of the sacred books of the Jews, and to engage proper persons from Jerusalem to translate them into Greek. As the king wished for information what was proper to be previously done towards facilitating the accomplishment of his object, Aristeas, (the pretended author of the history of the seventy-two interpreters.) Sofobus of Tarentum, and Andreas, three noblemen of the king's court, favourably inclined towards the Jews, recommended the release of the Jewish captives who were detained in Egypt, and whose whole number amounted to 198,000, before any message was dispatched to Jerusalem. Accordingly, a degree was issued for their release; and twenty drachmas each were paid out of the treasury for this purpose, so that the whole sum devoted to their redemption was not less than 664 talents. When this was done, Demetrius proposed that a letter should be written to Eleazar, the high-priest at Jerusalem, requesting him to send from thence a true copy of the Hebrew original of the sacred books, and with it fix persons out of each of the twelve tribes of Israel, to translate it into the Greek language. The bearers of this message were Aristeas and Andreas, who carried them, as royal prelates, several gifts for the temple, in money for sacrifices and other uses of the sanctuary, 100 talents; in utensils of silver, seventy talents; and in those of gold, fifty talents; and of precious stones, as ornaments to the utensils, five times the value of the gold. Upon their arrival at Jerusalem, they were received by the high-priest, and by the Jews, with great respect, and their request was immediately granted. Having received from the high-priest, true copy of the law of Moses, written in golden letters, and fix elders out of every tribe, i.e. seventy-two in all, they returned to Alexandria. The seventy-two elders being introduced to the king, they were tried by seventy-two questions, proposed to them, to each one in their order; and as their answers were satisfactory, the king gave to each of them three talents, and sent them into the island of Pharos adjoining to Alexandria, in order to perform the work assigned them. In the course of seventy-two days they completed their business, and as they agreed in the version of each period by common conference together, Demetrius wrote it down; and when the whole had been read and approved in the king's presence, each of the translators received another present of three rich garments, two talents in gold, and a cup of gold of the weight of a talent; and they were all sent home into their own country. Such is the account of Aristeas, which he ascribes in form of a letter to his brother Philocrates.

A Latin version of this history by Pameraus was prefixed to the Latin edition of the Bible, printed at Rome in 1473. It was a fo printed in Greek at Basle, in 1543, and as an appendix to the edition of Josphus, at Cologne, in 1701, with notes by Fabricius; and another edition was published at Oxford, in 1624, 8vo. It is universally allowed even by those who dispute the genuineness of this history, that it is ancient; because it agrees with the accounts of the Septuagint, given by Josphus and Eusebius, which appear to have been borrowed from Aristeas; and some modern writers have concurred with these and other ancient writers in admitting the truth of the narrative. But those who have taken great pains in examining this subject, have produced a conviction that now pretty generally obtains, that the tradition relating to the appointment of seventy-two interpreters by Ptolemy Philadelpbus, for the purpose of translating the Hebrew scriptures into Greek, is entitled to no credit; and that the story was invented by the Jews of Alexandria, in order to give importance and authority to the translation, which they had been under a necessity of making, after Greek had become their common language.

The work ascribed to Aristeas, a pagan officer in the court of Ptolemy, was probably written by some Hellenist Jew at Alexandria, not less than 200 years after the reign of Ptolemy Philadelpbus; in proof of which it is alleged, that Alexander Polyhiltor, who wrote about that time, mentions a history of the Jews by Aristeas. Hody (Bibl. Text. Orig. Oxon. 1705. fol.) Van Dale (Differt. supr. Aril. de Sept. syst. Amst. 1704. 4to.) F. Simon (Crit. Hift. Vet. Telt. l. i. e. 2.), Dupin (Proleg. ad Bibl. l. i. e. 6, § 2, 3.), and Pridaux (Conn. p. ii. b. i. vol. iii. p. 49.) Archibishop Usher (Syrantiga de Septuag. Interpret. ver.) Morinus (Exerc. Biblicum), Walton (Prolegomena to the Polyglot Bible, c. 9.), Voilus (de I. X. Interpret.), and many others, concur in rejecting the history of Aristeas as a fiction; and they have urged a variety of
of objections, that seem to be unavoidable, against its authenticity. Although there was in the reign of Ptolemy Philadelphus a Greek translation, the narrative of Aristotle was written at a time when the Jews were much given to religious romances; and whilst the author pretends to be a heathen Greek, he everywhere speaks as a Jew. He makes Ptolemy advance an incredible sum for redeeming captives and obtaining this version; a sum which Prideaux estimates at nearly two millions sterling, which may be reckoned above twenty times as much as the whole library was worth. Besides, the questions proposed to the seventy-two interpreters, and their extemporaneous answers, carry much the air of a fiction. The representation of seventy-two elders being sent from Jerusalem to Alexandria, and fix being chosen out of every tribe, has the appearance of a Jewish fiction, as it concerns the Jewish fanatics, and the twelve tribes, of which a heathen Greek must probably have been ignorant. Besides, this is said to have been transacted by Demetrius Phileres, who was banished or poisoned, or dead, at the time when this version was made. Nor is it probable that six elders of every tribe in Palestine could have been found so well skilled in both languages as to make an exact version from the Hebrew into the Greek. Moreover, why should seventy-two be sent, when seven would have been sufficient for the work, and such a number might have been more easily obtained. Gen. Dict. Fabr. Bibl. Græc. lib. iii. c. 12. § 2. t. ii. p. 317.

ARISTELLA, in Botany. See STIPA.

ARISTERA, in Ancient Geography, an island south-east of the peninsula of Argolis.

ARISTERIA, a town of Syria, in the Cyrrhotic territory. Ptolemy.

ARISTIDA, in Botany, an exotic grass (from arista, an awn or beard). Lin. g. 94. Schreb. 125. Clas. triandra digynia. Nat. Order, Gramineæ. Gen. Char. Cyl. glume one-flowered, bivalve; valves linear-fimbriate, membranaceous, unequal. Cor. glume bivalve, thicker than the calyx; outer valve linear, converging longitudinally, hispitate at the base, terminated by achenes awnese, pubescent or pubescent, or lanceolate, sharp, very short, wrapped within the outer valve; nectary, two-leaved; leaves, lanceolate, obtuse. Stam. filaments capillary; anthers oblong. Pity. germ turbinata; styles capillary; stigmas villose. Per. none; glume converging, involving, gaping. Seed, one, siliiform, the length of the corolla, naked.

Species. 1. A. adscenens. Browne, jam. 135, t. 1. "Panicle branching, spike scattered, corollas one-valved;" culms in tufts, one or two feet high, decumbent, jointed, simple; branches of the panicle defied close, subdivided, upright; florets on short pedicels, narrow, brown; awn three-parted at the base; anthers dark purple. This species, according to Linnaeus, has the habit of the festuca ovina. It is a native of the isle of Acrenion, and of Jamaica, where it is called the bearded grass. 2. A. americana. Swartz. Obs. 41. t. 2. f. 2. Browne, jam. 135; f. 2. "Panicle simple, corollas two-valved, one with dorsal, the other with terminating awns;" culm half a foot high, jointed, subdivided; leaves linear, stiff, even; panicle with simple alternate spreading branches; florets more pointed one way, approximately; rac His compacted, somewhat close. Dr. Browne calls this the smaller bearded grass, a native of Jamaica. 3. A. plumosa, "panicked, the middle awn longest and woolly, culms villose." The woolly horns give this species the appearance of festuca ovina, but the panicle is more compound, all the parts smaller, and the culm villose; the awn is also naked towards the base, where it has two bristles or little awns, which are opposite, short, spreading. We are informed by Linnaeus, that this species was found in America, by Schreber. 4. A. annulata, "panicked, corollas two-valved, middle awn longer, smooth;" culms four feet high; leaves rolled inwards, narrow, even, flattened; panicle oblong, brown; outer valve of the corolla awned at the tip; awn length of the flower, naked, and at its base, a minute awn faintly visible. Found in the East Indies, by Koenig. 5. A. gigantea, "panicle elongated, loose, one-valved; calyces one-flowered;" awns of the corolla feathery, straight;" culm lofty, branched, smooth; panicles about eight inches long, terminal; calyx very smooth, unequal, bluish; corolla smooth, with equal short awns, almost naked. Found on the island of Teneriffe, by Maffon. 6. A. hybrida. Pkbl. Alm. 191. f. 3. "Panicle divaricated, very spreading; flowers simple, smooth, awns straight, divaricated;" culm excreting, foliolous, smooth, very tough, leathy, short; leaves convoluted; panicle terminating, large; peduncles and pedicels binate; rays angular; flowers filiform, oblong; calyx one-flowered; valves unequal; corolla longer than the calyx, convoluted, terminated by three equal straight spreading awns. Observed in Malabar by Koenig.

ARISTIDES, surnamed the Just, in Biography, the son of Lytmachus, an illustrious Athenian, was distinguished for his moral and religious character, and peculiarly eminent for justice, magnanimous self-denial, and virtuous patriotism, disdaining his own private interest or power, where these might interfere with the welfare of his country. From his early youth he manifested a firm and steady temper, and a disdain of mean and base opinions. In the course of his diligent application to study, he became directed his attention to the subjects of philosophy. He acceded to the laws of Lycurgus, he preferred an oligarchy to the unbounded democracy that prevailed at Athens, to which his early and persevering antagonism to Themistocles was ardently attached. Hence arose that competition between them, which displayed itself on various occasions, in the progres of their advancement to public offices. Aristas engaged in the service of his country from the purest principles of patriotism; and his character was held in such general estimation, that when the following verses of Theocly, describing Amphious, were once recited in the theatre,

"To be, and not to seem, is this man's maxim:
His mind repose on its conscious worth,
And wants no other praise,"

the attention of the whole audience was directed to Aristas, as the person to whom this description might with the utmost propriety be applied. Aristas and Themistocles were so much the champions of opposite parties in the Athenian state, that their mutual competition led them to counteract one another even in measures that were just and useful. Aristas, however, could not pursue this line of conduct without self-reproach; and having, on a particular occasion, refilled a proposal of Themistocles, which he thought right in itself and conducive to the public good, he exclaimed, as he came out of the assembly in which the measure had been debated, "The affairs of the Athenians will never prosper, till they throw both of us into the barytron," that is, the dungeon for condemned criminals. In the office of public treasurer, he convicted Themistocles and others with whom he was connected, of peculation; and thus he excited a party against himself, which acceded him of having misapplied the public money; and he was cleared only by the interposition of the court of Areopagus. When he was again involved with the fame public trust, he allowed the persons who were concerned..."
cerned with him to act fraudulently without control, but at the same time keep a secret account against them. His conduct was universally applauded, and it was the general wish that he might be continued in office. However, when they were proceeding to elect him, he gave them a severe rebuke, and told them, "that while he had served them faithfully, he was the object of their displeasure and calamity; but when he had violated his trust, he was applauded, as an excellent citizen." He then exposed the frauds, and all parties were ashamed of their conduct.

The first public display of his generous and patriotic character was when Darius sent the Persian host to invade Attica. The republicanism of the Athenian democracy extending to military institutions, their army was commanded by ten generals, each of whom had the supreme direction for one day in their respective turn. Arilides, one of the ten, perceived that a vitiad of command must interrupt unity of design, and prevent a regular system and steady plan of military operations. The ability of the generals he well knew to be Miltiades; and he was aware that it was expedient for the country, in time of pressing emergency, to be guided by its greatest ability. The day approaching when it belonged to him to assume the command, he generously yielded his authority to the approved valour and experience of Miltiades. The other generals followed this magnanimous example, sacrificing the dictates of private ambition to the interest and glory of their country; and the commander in chief thus enjoyed an opportunity of exerting, uncontrolled, the utmost vigour of his genius.

After the defeat of the Persians in the famous battle of Marathon, in the year before Christ 490, Arilides was entrusted with the care of the spoils, which he faithfully brought to the public account, without reserving anything to himself. The following year he was archon or chief magistrate, and he continued to watch the welfare and interests of his country. Formed in such schools of moral and political knowledge as then flourished at Athens, he had learned to prefer glory to pleasure, the interest of his country to his own personal renown, and the dictates of justice and humanity even to the interests of his country. His ambition was rather to deserve, than to acquire, the admiration of his fellow-citizens; and while he enjoyed the inward satisfaction of conscious rectitude, he was little anxious about the external rewards of splendid actions. Eager to promote beneficence, he did not court popularity, but his conduct, without seeking the favour of the multitude, commanded their esteem and respect. His opinion gave law to the courts of justice, or rather such was the effect of his equity and discernment, that he alone became sovereign empire in Athens. In all important differences he was chosen arbitrator; and the ordinary judges were deprived of the dignity and advantages formerly resulting from their office. The Athenian magistrates were extremely displeased with an authority which had in a great degree superceded their jurisdiction. But the most formidable foe of Arilides was Themistocles—pre-eminent in genius that excelled itself in every department of public conduct, and excelling in arms, in policy, in eloquence, he secured a certain path to popularity. The affability of his manners, the magnificence of his entertainments, and profusion of his gifts, confirmed among the populace the impression of his talents and qualifications. Themistocles beheld with jealousy the influence acquired by the stern integrity of Arilides, and being himself so much better calculated for winning the affections of the multitude, succeeded in rendering the upright patriotism obnoxious to the people. Arilides truiling to the innocence and integrity of his own heart, disdained to employ any unworthy means, either for gaining the favour, or for averting the resentment, of the multitude. The contest, therefore, ended in his banishment for ten years, by the oracles, by which the majority of the Athenian assembly might expel any citizen, however odious or meritorious had been his past conduct, who, by his present power and greatness, seemed capable of disturbing the equality of republican government. Among those who voted against him on this occasion, one person was a rustic citizen, who, unable to write his name on the ball by which his concurrence in the sentence was signified, accidentally met with Arilides, and requested him to inscribe his name. The patriot asked him, "Did Arilides ever injure you?" the voter replied, "I do not so much as know him, but I am distinguished with everywhere hearing him called "the just." Arilides took the ball, wrote his own name upon it, and returned it to the voter. Upon his leaving Athens, he hired his hands towards heaven, and prayed that the Athenians might never be compelled to remember Arilides.

While Arilides was in exile, Xerxes had brought to a conclusion his immense preparations for the invasion of Greece. But when the Persian armament endangered his country, he facilitated all remonstrance to patriotism, joined his countrymen, who lamented his absence and wished his return, and at Salamis performed important services. Some time after the victory at Salamis, in the year before Christ 480, to which his concurrence with Themistocles greatly contributed, this commander informed the Athenians that he had conceived a project of great advantage to the state, but which he could not safely communicate to the public. The people directed him to disclose it to Arilides. The object of this scheme was the destruction of the whole confederate fleet of Greece, their own ships excepted, which would render Athens sole mistress of the sea. Arilides reported his opinion, that the project of Themistocles was eminently advantageous, but that nothing could be more unjust; and this determined them against acquiescing in it.

Mardonius having attempted to induce the Athenians to submission, Arilides, now chief annual magistrate, inspired and invagitated his gallant countrymen to perforce in rebellion, and in the following summer commanded the Athenian troops in the battle of Platea, which entirely discomfited the armament of Xerxes. When Athens was rebuilt, Arilides was active in promoting a popular decree, which gave to all the citizens a share in the government, and enjoined that the archons should be chosen out of the whole body. The virtues of Arilides were now celebrated throughout Greece; and the finances of the confederates were committed to his management. This important office he executed with such skill and fidelity, as very greatly improved the public resources. The plausibility of his disposition was eminently displayed in his conduct towards his invariable antagonist, Themistocles; for when he had incurred the displeasure of the ruling party, Arilides declined concurrence in the capital prosecution of him; and when Themistocles was banished, he was so far from triumphing on occasion of his fall, that he ever afterwards spoke of him with a greater degree of respect. After having contributed so momentously to the good of Athens and of Greece, Arilides died of old age, about 467 years before Christ, either at Postum, or at Athens, universally regretted by the affectionate admiration of his country. He, who had long managed the common treasury of Greece, left not a sufficient sum to defray the expense of his funeral. His son Lysimachus received a preface of three hundred pounds from the
he expresses his superior value for learning and eloquence above all things, he says; "nor can he be so stupid as to despise glory if it comes to his share, and so far as it may play, first in the court, and a life of virtue suited to his discourse; for he did not desire to obtain it by other means." "A character of such eminence," says Lardner, "must have been an ornament to the popular religion and its rights; and the charms of eloquence in his hymns to the gods, and in his other orations, cannot but have had powerful attractions."

Among the works of Aristides, are found an epistle "On the Causes of the Incendia of the Nile," in which he sets aside the common explanations of this phenomenon, and affirms it wholly to the immediate power and providence of God; and an excellent treatise "On popular and simple: Diction," exemplified from Demosthenes and Xenophon; which latter piece was published by Aldus, among the Greek rhetoricians, at Venice, in 1508. The oration of Aristides, in praise of Athens, intituled "Panathenaeus," written in imitation of Isocrates, is annexed to H. Stephen's edition of Isocrates, published in 1593. The entire works of this orator were published in Greek, at Florence, in 1517, folio; or in Greek and Latin, in three vols. 12mo., by P. Stephens, in 1626, at Upland by Normen, in 1577; and by J. B., in two volumes 4to., at Oxford, in 1722. Philosoph. de vit. Sophist. Sidusis. Lardner's Works, vol. viii. p. 81—85. Fabr. Bib. Graec. l. iv. c. 50. § 4. t. iv. p. 375. &c.

Aristides, a painter of Thebes, was contemporary with Apelles, about the year 334 before Christ, and distinguished for force and felicity of expression. He is said to have been the first who painted mind, and expressed the affections and passions. One of his subjects was the representation of the destruction of a town, and described by Pliny. Among other scenes of horror, a child was painted clinging to the breast of its wounded mother, who feared that after she was dead the child should suck blood instead of milk. This piece was carried by Alexander to Pella in Macedonia. The Bacchus and Ariadne of this master was part of the plunder of Corinth; and after it had been bought by Attalus, king of Pergamus, at a very high price, it was restored to Mummius for the temple of Ceres at Rome. For another piece Attalus is said to have given one hundred talents. Aristides's old man with a lyre teaching a boy to play, was fixed in the Caryatids. His Sick Man was much admired. Pliny, H. Nat. l. xxxv.

Aristides, an eloquent Athenian philosopher, and a convert to Christiannity, flourished about the year 126; and retaining the habit of his former profession, prefixed to the emperor Adrian an apology for the Christians, which was extant in Jerom's time, and which he represents as a monument with the learned of his ingenuity. This apology was imitated by Justin in the book which he prefixed to Antoninus Pius, his son, and the Roman senate. It is to be regretted that no fragment of this eminent Christian apologist's composition now remains. Euseb. H. E. i. iv. c. 3. Hieron. ad. Magn. ep. 84. Lardner's Works, vol. ii. p. 290.

Aristides Quintilianus, author of the most ample and, in many instances, satisfactory treatise among the seven Greek writers on music published by Melibonius. He flourished after Cicero, and before Ptolemy; which is all the information that can be obtained concerning the period of his existence. With many wild and fanciful notions about musical effects, his doctrines often breathe taste and feeling, but the taste and feeling of an enthusiast. His moral disquisitions of melopoeia are as curious and fanciful as those which the Arabs assign to the stringers of their lute.
ARISTIPPOS, founder of the Cyrenaic sect, was a native of Cyrene in Africa, and flourished about the 97th year of the Olympiad, or the 352d year before Christ. During his attendance at the Olympic games, he heard of the fame of Socrates, and immediately went to Athens, that he might become his disciple. After his introduction to the school of this great master of wisdom, he was for some time esteemed, on account of his genius and improvement, one of its chief orators; but his fondness for effeminate and luxurious indulgence gave great offence to Socrates and his friends. Of this propensity on the part of Aristippus, and his master's desire to correct it, we have a beautiful illustration in a dialogue preserved by Xenophon, Mem. i. ii. Involved in expenses which his patrimony could not defray, he set up a school of Rhetoric, and he is remarked to have been the first disciple of the Socratic school who took money for teaching. With a view, probably, of diverting or of silencing the reproofs of Socrates, he sent him a present of 20 minae, or about 64l.; but Socrates refused the present, alleging that his demon forbade him to receive it. At length the freedom of his manners alienated him from Socrates, and obliged him to leave Athens.

Devoted to a life of pleasure, Aristippus visited the island of Ægina, and there met with the celebrated Lais, whom he accompanied to Corinth. In this voyage, he was terrified by a storm, and one of the crew observing that he was somewhat disconcerted, alluded him, "Why are you philosophers afraid, when we illiterate fellows fear nothing?"

"Because," replied Aristippus, "we have more to lose."

In his way from Corinth to Alia, he was shipwrecked on the island of Rhodes; and accidentally perceiving a geometrical anagram on the sand, he exclaimed to his companions, "Take courage, I see the footsteps of men." When they arrived at the principal town in the island, he procured by his address accommodation for himself and his fellow-travellers, thus confirming one of his own aphorisms, "If you ask what advantage a man of learning hath above one that is illiterate, find them together among strangers, and you will see." After some interval, Aristippus repaired to the court of Dionyfius, tyrant of Sicily. When he first came to Syracuse, he was assailed by Dionyfius, "Why did you visit my court?" To which he replied, "To give what I have, and to receive what I have not." By the veracity of his disposition, and suppleness of the fable which he had adopted, as well as by the politeness of his manners, he accommodated himself to every situation, verifying the maxim of the poet, "Omnis Aristippus decus color, et flatus, et res." "Yet Aristippus every drees became," in all offices, in every state the fame."

Hor. ep. i. 17. 23.

Whilst he ridiculed the singularities which were affected by other philosophers, particularly the flattery of Plato, and the rigid abstinence of Diogenes, he complied with the requisition of Dionyfius, which enjoined all the guests at a public festival to appear in purple robes; whilst Plato refused, he adorned himself with a rich and splendid drees, and conversed and danced with the cafe and grace of a courtier. By these flexible and captivating manners, he conciliated the regard of the Sicilian tyrant, and gained a command of the royal favours. Thus distinguished, he became the object of envy to his brethren; and this circumstance will account for many of those tales that have been circulated to the disadvantage of this philosopher both by ancient and modern writers. However it is impossible wholly to exculpate him from the charge of libertinism. The reason of Aristippus's leaving Syracuse is not known, nor is it certain whither he removed. Æchines, who remained in Sicily till after the exile of Aristippus, on his return to Athens, immersed Aristippus teaching in the city, probably about the year 356 before Christ; and it is pretty certain that he and the rest of the philosophers left Syracuse before the expulsion of the tyrant. But whether he ever returned to his own country, and also when and how he died, are circumstances concerning which we have no certain information.

Aristippus was, without doubt, the man of pleasure in practice, as well as the preceptor of pleasure by profession. And yet, though he deviated from the strictness of Socratic morals both in his principles and his conduct, he must be allowed the credit of elegant manners, a spirit after knowledge, ready wit, and an ingenuous temper. The manner in which he became re-united to his friend Æchines, who had offended him, affords an amiable illustration of the latter quality. In the midst of a dispute which was becoming violent, "Let us give over," said he, "and be friends, before we make ourselves the talk of servants; we have quarrelled, it is true, but I, as your senior, have a right to claim the precedence in the reconciliation." Æchines acquiesced, and acknowledged his superior merit. The following repartee, selected from a great number attributed to Aristippus, deserve to be recorded. Polyxenus, a friend of Aristippus,
ARISTIPPUS, happened to call upon him when preparations were making for a sumptuous entertainment, and began a tedious discourse against luxury: Aristippus, tired of the harangue, invited Polycrates and a few friends to stay with him, and, after he accepted the invitation, "I perceive then," says Aristippus, "it is not the luxury of my table that offends you, but the expense." When he was asked, "what he had gained by philosophy?" he replied, "a capacity of converting, without embarrasment, with all classes of men."

A wealthy citizen complaining that Aristippus, in requiring 500 drachmas for the instruction of his son, had demanded as much as would purchase a slave: "purchase then one with the money," said the philosopher, "and you will be master of two." To one who boasted of his skill and activity in swimming, he said, "Are you not ashamed to value yourself on that which every dolphin can do better?"

The following maxims are not unworthy of the Socratic school: "Philosophers," said Aristippus, "excel other men in this, that if no laws existed, they would live honestly." "It is better to be poor than illustrious; for the poor man only wants money, the illustrious want the distinguishing characters of human nature." "The houses of the wealthy are frequented by philosophers, for the same reason that induces physicians to frequent those of the sick."

"The truly learned are not those who read much, but they who read what is useful." "Young people should be taught those things which will be useful to them when they become men." For the distinguishing sentiments of the Cyrenaic sect, founded by Aristippus, see CYRANEIS. Diogenes Laertius, lib. ii. § 65—80. Brucke's Hist. Philos. by Enfield, vol. i. p. 182—190. Travels of Anacharsis, vol. iii.

ARISTO of Chios, a Greek philosopher of the Stoic sect, was the son of Miltiades, and the intimate associate of Perioteus; and as both attended the lectures of Zeno at the same time, he must have flourished about 360 years before Chr. He was called, on account of his persuasive powers of eloquence, the Sirens'. His incoherent and eloquent style displeased his master, from whom he removed to the school of Polemon; and afterwards he made unsuccessful attempts to establish a school of his own. He opposed the doctrine of uncertainty maintained by the Academic philosophers, and particularly by Arcaelus; and made several innovations on the Stoic philosophy. He excluded from the course of his studies both physics and logic; the former as incomprehensible, and the latter as unuseful to the purposes of human life. He taught, with the Stoics, that virtue alone is the supreme good; but also, that in other things there is no difference which can render one more desirable than another. This doctrine of indifference he applied to moral actions, representing all actions as alike; so that to a wise man it was the same thing whether he performed the part of an Agammenon or a Thersites, provided he did it well. Seneca charges him with rejecting and condemning the preceptive part of philosophy in its relation to the particular duties of life. Whilst he discouraged all speculations in opinions, he maintained that the divine nature is incomprehensible, and he doubted whether the gods have perception or animal life, thus in effect denying the existence of deity. "Philosophers," says Arrius, "injure, instead of benefiting their disciples, if what is well meant be ill interpreted; and thus it is that the pupils of Aristippus became disaffected and thence of Zeno morose."

He should have added, says Bayle, that every teacher should avoid ambiguous maxims, and prevent false glooishes being put upon them; nor should we infer, that the doctrines of these philosophers had a tendency, even if rightly understood, to produce hurtful effects. While he inveighed against Arcaelus, he himself became addicted to pleasure in his old age. His death is said to have been occasioned by his bald head being scorched with the heat of the sun. Cie. de Fin. l. iv. c. 27. Nat. Deor. l. i. c. 14. Seneca's Ep. 89. 93. Diogenes Laertius. Gen. Dict. Brucker by Enf. vol. ii. p. 352.

ARISTO of Cence, a Pythagorean philosopher, filled the Aristotelian chair about 230 years before Chr. being the fourth in succession from the celebrated founder of that school, and died about the year before Chr. 185. He is represented by Cicero (de Fin. l. v. c. 5.) as a neat and elegant orator, but deficient with regard to the dignity and authority of a philosopher. Athenaeus (l. x. p. 419. and l. xii. p. 456.) cites a work ascribed to him, and intituled "Amarytory Similes."

ARISTO, Titus, a Roman lawyer, very much distinguished by his talents and character, lived in the time of Trajan, about the year 110. The younger Pliny, in his Epistles, (l. i. ep. 22. l. viii. ep. 14.) highly extols both his learning and his character; but if it be true that in an illusory, which he is said to have borne with great patience, he summoned his friends, and intreated them to ake his physician, what was likely to be the issue of his disorder? so that if they pronounced it incurable, he might put an end to his own life; we must admit the high panegyric of Pliny with considerate abatement. Aulus Gelius (l. xi. c. 11.) speaks of him as the author of many books. Gen. Dict.

ARISTOBULUS, in Biography, an Alexandrian Jew, was preceptor of Ptolemy Euergetes, eldest son of Ptolemy Philometor, king of Egypt, and flourished about 145 years before Chr. He was an admirer of the Greek philosophy, and united the study of the Aristotelian system with that of the Mosaic law. Eusébius represents him as a favourite of Ptolemy, and cites from his "Commentaries on the books of Moses," inferred to that prince, several verses of Orpheus, in which mention is made of Moses and Abraham. These verses are also found in the works of Justin Martyr; but so much altered as to afford reason for supposing their authenticity. In the Commentary the author also affirms, that part of the law had been translated into Greek in the time of Alexander; and that the whole was translated, under the care of Demetrius Phalarus, in the reign of Ptolemy Philadephus. But the commentary was not written till 120 years after the reign of that king; and as Demetrius Phalarus was in exile during the reign of Ptolemy Philadephus, he could not have superintended the Septuagint translation. It is therefore probable, that Aristasbuls either invented the story of the Septuagint interpreters, or borrowed it from Aristaes, in order to support the credit of this translation with his brethren in Palestine. See ARISTEAS. Aristasbuls seems to have been devious of ascribing the Grecian philosophy to a Hebrew origin, as we learn from Clement of Alexandria (Strom. lib. i.) and of establishing an opinion that Pythagoras, Plato, and other Greek philosophers, were acquainted with the Jewish law. It is not unlikely that he forged the above-mentioned verses of Orpheus, and also the tales respecting the Greek versions of the Hebrew scriptures. Upon the whole, Aristasbuls may be ranked with those who have been culpable of profaning pious frauds. Eufh. Prep. Ev. l. xii. c. 13. l. viii. c. 8. Brucker by Enf. vol. ii. p. 167.

ARISTOCRACY, in Politics, a form of government, where the supreme power is lodged in the hands of the optimates, i.e. of a council or Senate composed of the principal persons
perform of a state, either in respect of nobility, capacity, or probity. The word is derived from *aρος*, *ὁπία*, and *σεία*, *impero*, *I govern*.

In an aristocracy, the legislative and executive authority is vested in a select assembly, the members of which either fill up by election the vacancies in their own body, or succeed to their places in it by inheritance, property, tenure of certain lands, or in respect of some personal right or qualification. The separate advantage of an aristocracy consists in the wisdom which may be expected from experience and education; for a permanent council naturally polishes experience; and the members who succeed to their places in it by inheritance, will probably be trained and educated with a view to the station which they were defined by their birth to occupy. In an aristocracy, however, there is less honesty than in a republic, and less strength than in a monarchy. Its mischiefs are secretions in the ruling orders of the state, which, from the want of a common superior, are liable to proceed to the most desperate extremities; and oppression of the lower orders by the privileges of the higher, and by laws partial to the separate interests of the law makers. It would be a very happy thing, says Montefio- quien, if by some indirect method or other, the people could be emancipated from their state of annihilation; and, consequently, the bad aristocracy is that in which the part of the people who have no share in the legislation is so small and inconsiderable, that the governing party may have no interest in oppressing them. Thus when Antipater made a law at Athens, that any person who was not worth 2000 drachmas should be excluded from the right of suffrage, he formed by this means the best possible aristocracy; because the sum was so small, that few of any rank or consideration in the city were excluded. The more an aristocracy borders on democracy, the nearer it approaches to perfection; and it is the more imperfect in proportion as it draws towards monarchy. In an aristocracy, the laws should tend, as much as possible, to infuse a spirit of moderation, which would supply the place of the spirit of equality in a popular state; and as meddily and simplicity of manners constitute the strength of an aristocratic nobility, the nobles should not be involved in personal and particular specifications, distinct from those of their body. There are two principal sources of disorder, which should be avoided; there are execrable inequality between the governors and the governed, and the fame inequality between the different members of the body that governs.

Aristocracies, says archdeacon Paley, are of two kinds; first, where the power of the nobility belongs to them in their collective capacity alone; that is, where although the government resides in an assembly of the order, yet the members of that assembly separately and individually possess no authority or privilege beyond the rest of the community; such is the case in the constitution of Venice. Secondly, where the nobles are severally invested with great personal power and immunities, and where the power of the senate is little more than the aggregated power of the individuals who compose it; such was the case in the constitution of Poland. Of these two forms of government, the first is more tolerable than the last; for although many, or even all the members of a senate should be so profligate as to abuse the authority of their stations in the prosecution of private designs, yet, whilst all were not under a temptation to the same injustice, not having the same end to gain, it would be still difficult to obtain the consent of a majority to any specific act of oppression, which the iniquity of an individual might prompt him to propose: or if the will were the same, the power is more confined; one tyrant, whether the tyranny reside in a single person, or a senate, cannot exercise oppression in so many places at the same time, as may be carried on by the dominion of a numerous nobility over their respective realms and dependents. Of all species of dominion, this is the most odious; the freedom and satisfaction of private life are more restrained and harassed by it, than by the most vexatious laws, or even by the laws of a tyrant, who will of an arbitrary monarch, from whole knowledge, and from whose injustice, the greatest part of his subjects are removed by their distaste, or concealed by their obscurity. An aristocracy of this kind has been productive, in several instances, of disastrous revolutions; and the people have concurred with the reigning prince in exchanging their condition for the miseries of despotism. This was the case in Denmark about the middle of the seventeenth century, and more lately in Sweden. In England, also, the people beheld the depredation of the barons, under the house of Tudor, with satisfaction, although they saw the crown acquiring thereby a power which no limitations, provided at that time by the constitution, were likely to confine. From such events this leon may be drawn; that a mixed government, which admits a patrician order into the constitution, ought to circumscribe the personal privileges of the nobility, especially claims of hereditary jurisdiction and local authority, with a jealousy equal to the solicitude with which it provides for its own preservation." Mont. Sp. of Laws, vol. i. p. 18. 72—77. Paley's Prize of Philos. vol. ii. p. 150—182. See **OLIGARCHY.**

ARISTOGITON, in Biography, an Athenian who, with Harmodius, attempted to restore the liberty of their country by the overthrow of the two tyrants Hippias and Hipparchus.

Harmodius and Aristogiton, connected not only as citizens of Athens, but as friends, resolved to revenge an affront offered to the daughter of the former by Hipparchus, who had obliged her to retire from a public procuration, at which she was entitled to have aslilt, carrying a basket of flowers. Nothing less would satisfy the remonstrance of these two men, than the deposition of the tyrants. Having concerted the proper measures for their enterprise, they secretly imparted their plan to a small number of the citizens, fixed the day of execution to be the feast of Panathenaus, when all the citizens wore arms. They accordingly attacked and slew Hipparchus, in the year 514 before Christ, but were themselves instantly apprehended, and Harmodius was put to death. Aristogiton was put to the torture, in order to force him to declare his accomplices. The most intimate friends of Hiprais were named, and immediately put to death. When Aristogiton was asked by the tyrant, if there were any more? "There now remains," said he with a smile, "only yourself worthy of death." Leana, the mistress of Harmodius, is said to have behaved with similar intrepidity; for fearing left the pains of torture might extort from her a confession, she bit off her tongue, and spit it out. Though these champions of liberty perished themselves, yet the spirit which they excited continued to operate until it effected the emancipation of the Athenians, and drove Hiprais into exile three years after this event, or about the year 516 before Christ. Having reinstated freedom, the Athenians erected in the forum statues, made by Praxiteles, to the memory of Harmodius and Aristogiton, who had begun this revolution, and set them up to public view, that the fight of them might inspire the citizens with a more violent hatred of tyranny. They sung hymns to their praise at the Panathenaus, decreed that no flaves should bear their names, and very extensive privileges were granted in perpetuity to their descendants.
However, neither the characters nor the motives of these conspirators, whatever benefit might result from their conspiracy, seem to have deferred such testimonies of respect. Thucyd. i. vi. c. 56. Plat. in Hipp. t. ii. p. 220. Philostr. in Vit. Apollon. i. vii. c. 4. p. 265. Aulus Gelius, l. ix. c. 2. Travels of Anacharsis, vol. i. p. 171.  


Species 1. A. bicolata, two-lobed birthwort. A. longa scandens, foliis ferri equin effigie. Plum. Ray. "Leaves two-lobed, stems twining;" stem filiform, subdivided, leaves cordate; lobes oblong, armed, entire; petals crooked smooth; peduncles one-flowered, longer than the leaves; corolla ligulate; tube globose, many-keeled, curved, hexagonal, bluish, funnel-shaped, at the throat marked with longitudinal brown lines; limb elongated, flatulate. Nat. of Dominica and Hispaniola, covering trees and shrubs, and flowering from November till January. 2. A. triplata, three-lobed birthwort. Jacq. obf. 8. t. 3. Browne, 329. 3. Schartz. obs. 341. "Leaves three-lobed, stem twining; flowers very large, bagged at the base, tongue linear, very long." This is a climbing plant like the former; the stem is aromatic, and the flowers large and ventricose. It is a native of the West Indies, and South America; introduced here about the year 1775; and flowers in June and July. 3. A. pentandra, five-flamed birthwort. Jacq. Amer. 223. t. 147. piét. 115. t. 224. "Leaves cordate, hallate-subtrilobate, stem twining, bracteate cordate, embracing." The flowers of this are smaller, and have only five filaments. It is a native of America. 4. A. petala, peltate cordate. Jacq. Amer. piét. 114. 222. "Leaves kindsey-shaped, subpetalate, stem twining;" stem filiform, frusted; leaves small, armed, entire, smooth, standing on footstalks which embrace the stem; corolla spotted, brown; tube globose at the base, limbed, reflex, an inch long, the limb doted with green; throat funnel-shaped, pubescent at bottom; border having a lip an inch in length, tongue-shaped, retruse at the tip, slightly emarginate, set with convex, acute, dark purple dots, green below the tip to the throat. A native of St. Domingo and South America, where it flowers in February and March. 5. A. maxima, greatest birthwort. Jacq. Amer. 223. t. 146. piét. 114. 223. "Leaves oblong, acuminate, stem twining, peduncles many-flowered." This has strong climbing items by which it mounts up to the top of the tallest trees; leaves four inches long, two broad, oval, obtuse, thick; flowers curved in loose clusters at the ends of the shoots; fruit like a purse, very large. It was sent to England by Mr. R. Miller, from New Spain, and since found by professor Jacquin, to whose elegant figure of it we have above referred. 6. A. bilabiata, two-lipped birthwort. Schwartz. obs. 342. Plum. fpec. 5 ie. 32. f. 1. "Leaves cordate-tongue-shaped, obtuse, stem twining, corolla two-lipped;" stems filiform; branches alternate, loofe, three or four leaved; leaves entire, filiform, smooth, petals shorter than the peduncles; corolla middle- 

fized, brown purple, frilated; tube globose at the base; border elongated, oblong, blunt, reflex; funnel of the tube, spilt, so as to make the corolla bilabiata. A native of South America. 7. A. eretta, upright birthwort. "Leaves lanceolate, felifel, subbifurcate; items erect, peduncles solitary, one-flowered, flowers very long; stalk three feet high, leaves long, narrow, hairy, with very short footstalks; flowers solitary, axillary, four inches long, of a dark purple colour; seeds flat, heart-shaped. Discovered at Vera Cruz by Dr. Houfton, who sent the seeds to Europe about the year 1733, where it was cultivated by Mr. Miller. 8. A. arborens, tree birthwort. Pacific. 50. t. 78. f. 1. "Leaves cordate-lanceolate; items erect, shrubby," about two feet high; branches strong enough to support themselves; flowers solitary, axillary. A native of North America. 9. A. couda, tall birthwort, Jacq. Amer. 233. t. 145. piét. 114. t. 221. "Leaves cordate, obtuse, emarginate at the tip, lobes incumbent, lip tailed;" the lobes of the leaves lap over each other at the base; the lip of the corolla ends in a bristle-shaped tail. A native of America. 10. A. odoratissima, sweet-scented birthwort. Browne, 329. 1. Sloane, v. t. 102. t. 104. f. 1. "Leaves cordate; item twining, shrubby; peduncles solitary; lip of the corolla very large;" root long geniculated; stem climbing, five or eight feet high; branches numerous; leaves cordate or triangular, four inches long, longitudinally ribbed; corolla yellowish. The whole plant has a strong grateful smell. A native of Jamaica, where it is called conca. Native of the United States, cultivated by Miller in 1752. 11. A. sphyrtosa, broad-leaved birthwort. L. Heritier, filip. nov. p. 13. f. 7. "Leaves cordate, petiolated, flowers solitary; border trinity, equal, bracteate ovate; item twining, shrubby." This is a tall twining shrub with few branches, of a camphorsaceous smell, leaves spreading, remote, roundish, foliate-cordate, veined; peduncles lateral, one-flowered; bracteate decurrent, embracing the peduncle; corolla of a purplish brown, an inch and a half long; tube shaped like a syphon, with a trident flat border. A native of North America, and introduced here by Mr. Bartram about the year 1763. It flowers in June. 12. A. angucida, snake killing birthwort. Jacq. Amer. 232. t. 144. piét. 114. t. 220. Morris hill. 3. f. 12. t. 17. f. 7. "Leaves cordate, acuminate; item twining, shrubby; peduncles solitary; flippus cordate;" root thick; items slender, long, jointed, purple; cordillas purple, straight, truncate as it were with a lanceolate lip. If the juice of the root mixed with the saliva be put into the mouth of a serpent, it may be handled with safety; but will recover in two hours. A native of Mexico and the West Indies. 13. A. davurra, Moorish birthwort. Mor. hill. f. 3. f. 12. t. 17. f. 11. "Leaves hallate, quite entire; item weak, simple; flowers solitary, recurved." It has several filiform items producing seven or eight leaves on each side of the upper part of the item, these are ash-coloured, opposite, rethming those of ofunella regalis. The flowers are larger than those of common birthwort, brown, and appear among the lower leaves. Discovered by Rausel in olive grounds about Aleppo. 14. A. Indica. Indian birthwort. Gartn. Prat. i. 45. Carul. vegen. Rheed. Mal. 8. 48. t. 25. "Leaves cordate, rather acute; item twining; peduncles many-flowered;" items shrubby, frusted, slender; leaves entire, smooth, frequently retruse or emarginate; peduncles axillary, with alternate acute bracts, within which stands a single flower on its proper pedicel; corolla a dulky purple. A native of the East Indies and Cochinchina. 15. A. boecia, Spanish birthwort. Mor. t. 17. f. 6. "Leaves cordate, rather acute; item twining; peduncles about three, longer than the petals;" these are slender, frusted, spreading over hedges and bushes; leaves acuminate, on long pedicels;
flowers crooked, oblong, very dark purple; stigmas ovate-oblong, and mucronate. Found by Chittis in Andania. An evergreen, and odorous plant, flowering in January and February, cultivated by Gerard in 1597. This was formerly called climbing birthwort. 16. A. junciperina, evergreen birthwort, *fj flor hæbæ čertica*. Bauh. pin. Mor. Nat. Hist. 12. t. 17. f. 16. "Leaves cordate-oblong, acuminate, waved; stem weak, flowers solitary;" the leaves are many, trailing, more than a foot long, flattened, angular, leafless, narrow, evergreen, on long peduncles; flowers axillary, crooked, attached to the leaves, of a dark purple externally, internally yellow. A native of the island of Crete, flowering in May and June. Cultivated in the Chelsea garden in 1739. 17. A. serpen tinus, Virginia birthwort or snake-root. Woodv. Med. Bot. 274. t. 156. Nat. Med. "Leaves cordate-oblong, flat; stem weak, flexuose, round; flowers solitary;" root a congeries of small fibre, yellowish; stem jointed, thin, from six inches to a foot in height; leaves lanceolate, cordate, nerves; flowers blue or purplish, on long footstalks, proceeding from the lower joints of the stem; tube compressed at the throat, ventricose and round at the base, spreading at the border. It flowers in May, and perfects its seeds in August. A native of Virginia and Carolina. Cultivated by Tradecant at Lambeth, in 1632. 18. A. pyrifolia. Lin. esp. 1704. "Leaves cordate-crenulate, retted underneath, petiolate; flowers solitary;" the leaves are angular, branching, fleshy, riling to a foot in height, and feebly strong enough to support themselves; bracte heart-shaped at the base of the peduncle; flowers small, lip incurved, tubes and beginning of the petal yellow, broader and blood-coloured. A native of the south of France, Spain, and Switzerland. Cultivated by Gerard in 1597. 19. A. rotunda, round-rooted birthwort; "leaves cordate, subfuscile, obtuse; stem weak, flowers solitary;" the roots are roundish, about the size of a small turnip; they send out three or four weak trailing branches, to the extent of two feet; leaves rounded at the end; flowers stand singly, close to the petioles, they are of a purplish black colour, and curved inwards at the lip. A native of the south of Europe, flowering from June till the end of August. 20. A. longa, long-rooted birthwort. Woodv. Med. Bot. p. 294. f. 127. "Leaves cordate, petiolate, obtuse; stem weak; flowers solitary, fruit ovate;" the root is very long, somewhat fulliform; stem weak, angulate; branches trailing; peduncles at the axil of the leaves; flowers of a pale purple colour, angulate; tube gradually widening to the mouth, which is ovate and terminating in a pointed apex. A native of the south of Europe. It flowers at the same time as the *A. rotunda*, which it very much resembles. They were both cultivated by Gerard in 1596. 21. A. lyfuta, rounder birthwort. Tournef. inüu. t. 127. "Leaves cordate, rather obtuse, flagglar; flowers solitary, pendulous, recurved, lubrumeate." This species has some resemblance to the preceding, but the leaves are hairy, and not so deeply cut at the end, the flowers are also much larger; stem fribated, hairy, leaves obtuse, danger-pointed; corolla incurved, and recurved, without an elongated lip. Tournefort says the root is nearly two feet in length, and two inches in thickness; stems two feet high, knotted, at each knot arises a single leaf three inches long; flowers axillary, of the shape of an S, and of a pale green, mixed with a purple colour. It is a native of the island of Scio or Chios. 22. A. elamtitus, common birthwort. Hudf. 394. With. 1935. Woodv. Med. Bot. supp. f. 238. Eng. Bot. 398. "Leaves cordate, stem erect, flowers axillary, crowded;" the leaves are two feet high, simple fringed, smooth, a little zigzag; leaves alternate, on footstalks without stipules, heart-shaped, entire, smooth, broad, veined, nervet; flowers five or fix in a cluster, axillary, of a pale yellow, appearing from July till September, consisting of one petal, globe to the base, with fix stigmas, the funnell-shaped, and terminating in a tongue-like figure; style simple, with fix stigma. Smith. Found in England about the ruins of monasteries, abbeys, &c. The following five are new species. 23. A. annuus. Mill. Dict. n. 9. "Leaves cordate, on very long footstalks; stems climbing; flowers terminal, on very long peduncles." This climbs to a very considerable height; leaves broad, longitudinally veined; flowers in terminal clusters. They are native of Crete, and of long peduncles. It grows about Tolu in New Spain, from whence Mr. R. Millar first the seeds to England. 24. A. confertif. Mill. Dict. n. 11. "Leaves cordate, petiolate; stem climbing; flowers in axillary clusters." This climbs to the height of three or four feet; leaves short, somewhat like those of *A. rotunda*; flowers dark purple. It was discovered by Mr. R. Millar at Campusque. 25. A. bradula, Retz. obsb. 5. 29. n. 80. "Leaves cordate, obtuse; stem weak; flowers solitary; bracteae, petiolate, stem flexuose, fringed; flowers peduncled, shorter than the leaf, with a long curved lip. Found by Koenig about Madras. 26. A. obfufata, Swartz. prod. 126. Plum. ic. 27. t. 53. "Leaves cordate, rounded at the tip, three-veined, nerved, and tomentose beneath; stem twining; peduncles solitary." A native of the Caribbean islands. 27. A. grandiflora, Swartz. prod. 126. Brown. jam. 272. n. 2. "Leaves broad, cordate; stem twining, tuberoseaceous; peduncles solitary, tip of the corolla very large, with a long tail." Flowers large, five or six inches round the margin; throat clasped long and narrow; a figure of the flowerable time; lip terminating at the lower extremity in a long slender appendix. A native of Jamaica (about St. Ann's). Medicinal Properties. The *A. rotunda*, *longa*, and *elamtitus*, formerly were admitted into the materia medica of the British pharmacopoeias; and the leaf is still retained by the Edinburgh college. The virtues which the ancients ascribed to their roots were very considerable, and they were consequently employed in various diseases, particularly those thought to proceed from obstructions more especially of the uterine volumen; and we are informed by Dr. Cullen, that in some cases of this description, he found the *aristolochia* an useful remedy. Though many species of this genus have been recommended for their medicinal powers, it is only that of *serpen tinus* which has continued to maintain its character as a medicine of importance. The root of *serpen tinus*, as well as that of some of its congeners before mentioned, was first recommended as a medicine of extraordinary power in counteracting the poisonous effects of the bites of serpents, since that time it has been principally employed in fevers, especially those of the malignant kind; a practice founded on a supposition that the mottled matter of these fevers was to be lubricated by the same means as that of the poison of serpents: hence the *serpen tinus* has been deemed the most powerful of these medicines termed alexipharmics. But since this theory has been exploded, its good effects are now ascribed to its tonic and antifebrile properties. It is certainly a powerful stimulant and diaphoretic, and has been found very useful in fevers, where these effects have been required, as appears from the writings of Huxham, Hillary, Fringle, &c. See Woodville's Med. Bot. p. 193. Propagation and Culture. Those species that are natives of hot climates, as 1, 7, 9, 10, 12, 14, 27, require a stove to preserve them. The seeds, by which they are to be propagated, should be brought over in their pods, and immediately on their arrival here, should be sown in small pots filled with light
light earth, and should this happen in autumn or winter, the pots should be plunged into the tan of the bark flour, and under the shade of large plants. After remaining till March, they should be plunged into a hot-bed under frames, where the plants ought to appear in May. But if the seeds arrive in spring or summer, they must be sown in small pots, and plunged into a moderate hot-bed, offering to the shade of leafy plants, and kept there continually during the heat of the day; but the seeds found at this season of the year seldom grow the same year, and in the spring following treated as before directed. When they are strong enough, they should be transplanted into separate small pots, and treated as other tender plants of the same countries. 8. The tree is kept in open ground, but requires shelter in winter. It is hardy and may be propagated by seeds, suckers, or by parting the roots. 13, 15, 16, 18, are propagated by parting the roots; they should be sown from seeds sown in March. 17, 19, 20, 21, are propagated by seeds, in pots placed under a frame to defend them against frost, but the glases to be taken off when the weather is mild; and they would be greatly improved by removing them to a gentle hot-bed in March. As the season advances, they should be gradually urged to bear the open air; when the pots are taken out of the bed, they may be exposed to the morning sun, but screened during the heat of the day. They are to be refreshed with water moderately during dry weather only. In winter, the pots must be sheltered as before; and, in March, before the roots begin to show, they should be transplanted into separate small pots, and placed under the frame till spring, when they may be removed into the open air, and treated in the same manner as in the former year. The next spring they may be turned out of the pots, and planted in a warm border, where they will only require to be kept clean from weeds, and the roots defended from the frost, by covering the border, in autumn, with old tanner's bark. By this management the plants will become much healthier and stronger than if kept in pots, and when they are three years old, will flower, and produce plenty of seeds. The 22d species spreads so rapidly by its creeping roots, that it will be found troublesome, unless planted where it cannot injure other plants. All the species are perennial, and their fruits generally require support. See Martyn's Mill Diet.

ARISTOMENES, in Biography, a famous general of the Meffinians, distinguished by his love of liberty and his valour, and also by the vicissitudes of his fortune, was the son of Niconides, and a descendant of the royal family of Meffene. The oppression of the Spartans roused his indignation, and he took up arms, in connection with the Argives and Arcadians, for the rescue of his country; and thus commenced the second Messenian war, in the year before Christ 684, which terminated in the year 608 before the same era. The first battle was fought in a village of Meffene, and the victory was long doubtful; but Arilomenes by his valor determined the fate of the day; and the army unanimously hailed him as king. This honour, however, he declined, and chose to retain that of general. His next object was to intimidate the Spartans by a single act of courage; and with this view he repaired to Lacedemon, and having secretly entered the temple of Minerva, he affixed to the wall a buckler, with this inscription, "Arilomenes has consecrated this to the goddess, from the spoils of the Lacedemonians." In a second engagement the Lacedemonians were again defeated, and one of their towns was taken and pillagd; but in this action Arilomenes received a wound in the thigh, which however did not prevent his marching to invade Sparta, whence he was under a peculiarity of retreat.

In the third year of the war, the Messenians were betrayed by the treachery of Arilomenes, king of Areola, and followed a defeat, attended with the loss of the greatest part of their army. Thus weakened and divested, the resolution of Arilomenes was invincible; and with a small band of select men, he contrived to harass the Spartans, and to penetrate into Laconia. At length the valiant general was taken prisoner, and confined in a deep cavern amidst the other wounded and dying prisoners. In this nofme recess he continued three days; when perceiving at a small distance from him a fox preying upon a dead body, he seized its leg and permitted it to conduct him to a small hole through which he could discern the light. Having enlarged the aperture with his haws and nails, he obtained a passage through which he made his escape, undeceived, to his countrymen at their post on mount Ira. He then renewed his ravages among the enemy, and compelled them to a truce; but he was perilsly feized by some Cretan soldiers in the service of Sparta, and carried away captive. Thefe Cretans, who were feen in number, fopped at the hose of a widow with one daughter; and whilst they were intoxicated with wine, the woman cut the thongs by which he was bound, and set him at liberty. Thus released, he flew all his guards, and accompanied by the mother and daughter, halled to Ira, where the latter was married to his son. Ira was treacherously surrendered to the Spartans; but Arilomenes forming a small band of his followers into a column, marched directly to the enemy's line, which opening to the right and left, as he advanced, afforded him an unobstructed passage. He then joined the Arcadians, by whom he was kindly received, and proposed to them a bolder exploit than any which he had yet achieved. " I have still left," he said, "five hundred brave soldiers who will follow me where I place; if you affit me, whilst the Spartans are occupied in the pillage of Ira, I will march immediately to Lacedemon and surpise it." The proposal was received with great applause; but, before it could be executed, the Arcadian king contrived to delay it till he had forewarned the Spartans of their danger. His treachery was discovered, and the enraged people flung him to death. Thus disappointed, he left the Cretians, under the conduct of his son, to the island of Sicily, where they founded the city of Messina, about the year 608 before Christ, according to Paulainus; and he remained in Greece, watching a favourable opportunity for accomplishing the designs against the Spartans which he was still meditating. Such was his reputation, that when a perfon of the first rank at Rhodos consulted the oracle at Delos whom he should marry, he was directed to espouse the daughter of the most worthy of the Greeks, meaning Arilomenes. On a visit to this son-in-law, Arilomenes died, and a magnificent tomb was erected for him at Rhodos. The independence of his country, however, expired with him. Paulainus, l. iv. c. 21, 22, 23. Anc. Un. Hist. vol. v. p. 413—423. Travels of Anarcharhis, vol. iv. p. 38—53.

ARISTONIUS, in Ancient Geography, a town of Achaia, near the borders of Sicily, north of Palene, and at the bottom of a small gulf.

ARISTONIUS, a city of Egypt in the road from Coptos to Berenice, 25 miles from Diodopolis.
The eagle is necessarily attached to Jupiter in order to distinguish the god, but with respect to the other attributes, we may fairly infer that they were introduced in order to point out the union of justice and money in the divine nature. The thunder, an emblem of his power to execute judgment, is placed in his hand, but the bloodstains of spring are as a crown upon his head, to show that it is his delight and his glory rather to bless mankind. The face of this divine being turned towards fun-ride, seems to strengthen this idea, and might be intended to exhibit the care and government of the Divine Being in the conduct of his providence.

ARISTOPHANES, a celebrated comic poet, flourished about the middle of the fifth century before Christ, and was contemporary with Sophocles, Socrates, Euripides, and several others of the greatest men in Greece. The place of his birth is not known; but it is generally supposed that he was not a native of Athens, though he was much esteemed in this city, where he seems to have resided and been admitted to the honour of a denizen. Having been accosted by Cleon of alluming the title of a citizen without possessing a legal right to it, in his defence he parodied two verses which Homer has put into the mouth of Telamonus, of which this is the sense: "I am, as my mother tells me, the son of Philip; for my part I know little of this matter, for what child has his own father?" This stroke of pleasantry is said, having impressed his judges to confirm him in his privileges as a citizen, he breathed more bawdy against Cleon, and composed a piece against him aboundimg with the bitterest sarcasms. As he advanced in life he employed those talents for poetry which distinguished his early age, in that species of dramatic writing, called "The Old Comedy," which flourished during the Peloponnesian war, and a little before it, and which introduced on the stage real personages by name, in order to make them the objects of invective or ridicule. Having reduced this kind of comedy from its rude and unconnected state into a better and more useful form, he made it the vehicle of very unallowable and licentious severity and abuse. This was particularly the case in his first comedies; but he is said to have become more moderate in his later performances, and to approach in his manner to what was called "Middle Comedy," in which real personages were not introduced, but the characters were in some measure dignified by fictitious names; see Comedy. His first efforts were directed to the reformation of abuses in the state; and he laboured, without discrimination, the usurpation and misconduct of the great, and the follies and vices of the people in general. While he exposed the finiter deligns of the magistrates and generals of the Athenians by his wit and satire upon the theatre, he at the same time took care to defend the commonwealth against its foreign enemies; infomuch that Lyceum and other cities which were jealous of the grandeur of Athens, frequently experienced that Aristophanes alone was worth an army to that city, and that it was impossible to succeed while they followed the advice of this poet, who had made the stage a kind of school for the art of war, and all other virtues which can render a city formidable to its enemies. We are told that the freedom with which he reprehended the errors and faults of the philosophers, poets, generals, and ministers of state, and those of the masts of citizens, was so well received by the Athenians, that they cast handfuls of flowers upon his head, and carried him in triumph through the city with the greatest respect and loud acclamations. As a recompense for the zeal which he manifested on behalf of the commonwealth, they pofled a public decree, that he should be honoured with a crown of the sacred olive in his lifetime, which was the highest token of respect that could be paid to any citizen. Two excellent actors, Callistratus and Philodamus, performed in the comedies of Aristophanes. When the first appeared, it was understood that the comedy was directed only against the vices of individuals; and when the second acted, that it attacked the leaders of the administration. But the licentious attacks of Aristophanes, though often applauded by the multitude, were disapproved and condemned by the mod. intelligent part of the public. Accordingly, by one decree, the acting of comedy was prohibited; by a second, it was forbidden to mention any person by name; and by a third, to attack the magistrates. But these decrees were soon forgotten or repealed; nor would the multitude consent to relinquish a species of entertainment in which all the abusive and obscene expressions of their language afforded, were lavished on the objects of their jealousy or resentment. Towards the end of the Peloponnesian war, the licentiousness of the poets was restrained, and Aristophanes himself submitted to this reformation in his latter pieces. But no reformation which he might effect in the state, much less any gratification which he might afford to the licentious humour of individuals, can alone for or excuse his maligant attack on the reputation and life of Socrates. His comedy of "The Clouds," was written with a view to expose to ridicule this admirable philosopher. To this purpose he represents him suspended in a baloon, resembling his thoughts to the subtle and light air to which he refers, and invoking the gods, the tutelary deities of the sophists, who over him he imagines that he hears in the midst of the fogs and darkness by which he is surrounded. To inflame the more against him the prejudices of the people, he accuses him of teaching the youth of Athens to contemn the gods, and to deceive men. This piece, which was received at its first and second recital with applauses, though it did not obtain the crown, is thought to have contributed towards preparing the Athenians for that unjust decree, which bereaved that age of its brightest ornament. Aristophanes, notwithstanding the malignity of his satire, the occasional obliquity of his humour, and the licentiousness of his morals, was universally admired among the ancients on account of the Attic elegance of his style, and the peculiar poignancy of his wit. The purity and elegance of his diction was so much admired even by Plato, the disciple of Socrates, that in an epigram he represents the graces searching for a desirable mansion, and at length fixing it in the mind of Aristophanes; and St. Chrysostom, the most eloquent of the Greek fathers of the church, is said to have laid him always under his pillow when he went to bed. Nevertheless, many of the ancients felt and enured the faults of Aristophanes. The character which Plutarch (in Compar. AristoPh. & Menand., Oper. t. ii. p. 853 and 854.) gives of him, is as follows: "he outrages nature, and addresses himself more to the populace than to a genteel audience; his style is constantly mixed and unequal, elevated to bombast, familiar even to vulgarity, and buffonish even to childines. In him the father is not to be distinguished from the son, the citizen from the peasant, the warrior from the tradesman, or a god from a human servant. His impudence can only be endured by few of his own; his wit is bitter, sharp, and cutting; his plesantry consists chiefly in a play upon words, grots equivocations, and far-fetched and licentious allusions. In him, sublety of expression becomes malignant, and simplicity appears stupid; we are more inclined to hiss than to laugh at his buffoonery, and his gravity is effrontery; in short, he writes not to please rational and worthy people, but to gratify envy, spite, and debauchery." Upon the whole, we may observe, that such wit as his would not be admired in any modern
modern composition. Frischlin has written an express vindication of Aristophanes, in answer to the objections of Plutarch. Cicero likewise, in his first book "De legibus," tells him the most witty poet of the "Old Comedy," and highly commends him for endeavouring to expel the new deities out of the city, and to prevent the admission of scandalous forms of religion. Bruinoy thinks that Plutarch's remarks are too severe; and Mr. Cumberland has defended the author of the "Clouds," with true classical zeal, somewhat, perhaps, at the expense of Socrates and Euripides.

Athenæus (Deipn. l. x. c. 9.) informs us, that he wrote his comedies when he was drunk, as Alcæus likewise did his poems. Julius Caesar Scaliger compares Horace to this poet; but Prichard is of opinion, that Plautus has a greater affinity to him in his manner of writing, and has actually imitated him in many parts of his plays. By others, his writings have been represented as containing within them the germ of true comedy, and the models of the ball comic style; and they maintain that the author well understood that species of raillery, which, in his age, was pleasing to the Athenians, and which must please in every age.

Aristophanes is said to have invented a peculiar kind of verse, which was called by his name, and is mentioned by Cicero in his "Brutus." Suidas tells us, that he likewise invented the "triterameter" and "octameter" verse. Eleven of the fifty-four comedies said to have been written by this poet, still remain, and these belong entirely to the first era, known by the name of "the Old Comedy." Of this kind of drama Eupolis, Cratinus, and Aristophanes, were the three most celebrated authors. Of "the Middle Comedy," he gave a specimen in his "Cocулus," that is now lost, in which he did not introduce real personages, as in his "Equites," "Clouds," and "Frogs," but fictitious ones. Madame Dacier observes, that there are but two of them, "Plutus," and the "Clouds," which, with a regard to decency, will admit of a translation into the modern languages. The design of the latter has been already mentioned. The former, written after the magistrates had given orders that no perfom should be exposed by name on the stage, was intended to reproach the Athenians with their avarice, which had been the occasion of their committing many errors in concerns of the greatest importance. This is the most esteemed of any of the comedies now extant. Euripides, to whom this poet had a particular aversion, is fatigued in several of his plays, particularly in his "Frogs," his "Acharnenses," and his "Themisorphonizal." The best editions of Aristophanes are those of Kuller, Berger, and Brunck. Gen. Dict. Travels of Anacharsis, vol. iv. p. 48. 53, &c. Nouv. Dict. Hiler.

ARIPOPHANEUM, in Ancient Physic, a name given to a kind of emollient plaster, prepared of pitch, wax, opopanax, opoponax, and vinegar.

ARISTOPHILL, in Ancient Geography, a people of Asia, in the Paropamisus, Ptolemy.

ARISTOTELIA, in Antiquity, annual feasts, celebrated by the citizens of Stagira, in honour of Aristotle, who was born there; in gratitude for his having procured from Alexander, the re-building and re-peopling of that city, which had been demolished by king Philip. It is said, that after his death at Chalices, in the island of Euboea, he fetched away his bones, built an altar upon his tomb, called the place by his name, and held their assemblies there afterwards. Mandeville, in his fabulous account of his voyages, says, that this was still in being in his time; that is, in the fourteenth century. Ammon. in Vit. Aristot. Stanley's Hist. of Philos. p. iv. c. 8.

ARISTOTELIA (from Aristotele), in Botany, a small shrub, a native of Chili. Schreb. n. 810. L'Héritier Hrbp. Vol. II.

nov. 31. t. 16. Jul. 473. Clas. dodecandra monogynia. Gen. Char. Cal. perirnith one-leaved, five-parted; divitions lanceolate, concave, acute, upright. Cor. petals five, wedge-shaped, concave, erect, lying over each other at the sides, scarcely longer than the calyx. Stam. filaments fifteen, very short; anthers linear, shorter than the germ. Pfl. gurn inferior, roundish, rather three-cornered; style filiform, longer than the corolla; figmas three, recurved. Per. berry subglobular, obtusely three-cornered, three-celled. Seed two, or solitary in each cell, angular.


Species, 1. A. macupi, shining-leaved Aristotelia; root woody; stem brachiate, round, grey, tubercled; branches spreading, leaf with wart-like glands; leaves opposite, oblong-ovate, acuminate, serrate; the younger leaves of a shining bright green, somewhat viscid, on foot-alkals; stipules in pairs, minute, like glands; peduncles racemose, axillary, nodding; flowers pedicelled, drooping, globose, hermaphroditous; calyx villose; style often triphid; berry the size of a pea, of a dark purple, becoming black. This small shrub is a native of Chili, whence it was first sent to Europe by Dombey, and known by the name of macupi. The inhabitants of Chili make a wine of the berries, which they give in malignant fevers. It is hardly enough to bear the open air in general. But in severe winters it ought to have the protection of a green-house. It flowers in April and May, and was introduced here about 1773, by Meiff. Kennedy and Lec. Lourieo has given the name of Aristolotha to a genus of the clafs gymandra, found in China.

ARISTOTELIAN, something that relates to the philosopher Aristotle. Thus we have an Aristotelian dogma, the Aristotelian school, &c. See ARISTOTELE.

ARISTOTELIAN philosophy, the philosophy taught by Aristotle, and maintained by his followers.

The Aristotelian is otherwise called the Peripatetic philosophy; the rite, progres, vicissitudes, and fate of which, see under ARISTOTELE, and PERIPATEETES.

ARISTOTELIANS, a sect of philosophers, otherwise called Peripatetics.

ARISTOTELICA rota. See ROTA.

ARISTOTLE, in Biography, was born at Stagira, on the coast of Thrace, in the beginning of the ninety-ninth olympiad, eighty-five years after the birth of Socrates, and 384 before the birth of Christ. Stagira, as well as the neighbouring Greek cities, enjoyed the precarious dignity of independent government: it was the ally of Athens in the Peloponnesian war, and, like other nominal allies, experienced the flero dominion of that tyrannical republic. The city of Stagira indeed owes its celebrity wholly to Aristotle and his family; and, if its name is still familiar to modern ears, this proceeds merely from having communicated to our philosopher the appellation of Stagite. His father, Nicomachus, who was the physician and friend of Amyntas, king of Macedon, derived his descent through a long line of medical ancillaries from Eleucipas the companion of the Argonauts, whose skill in the healing art had raised him to a seat among the gods. Nicomachus improved a branch of knowledge which was the inheritance of his family, by writing six books on natural philosophy and medicine. The mother of Aristotle was Phœdia. He left his parents in early youth, but inherited from them a large fortune. He was left to the guardianship of Proxenus, a citizen of Atarne in Mythis, who received the young Stagite into his family, and skilfully directed his education. At the age of seventeen, Aristotle was attracted by the love
Aristotle.

love of learning to Athens, and particularly by the desire of hearing Plato in the academy, the bad School of Greece as well as morals then existing in the Lyceum, and where the most ambitious student might find competitors fit for exciting his emulation and sharpening his diligence. Plato early observed of him, that he required the rim rather than the spur. His industry in penning and copying manuscripts was unexampled, and almost incredible; he was named, by way of excellence, the studens or reader. Plato often called him the "soul of his school;" and, when Aristotle happened to be absent from his prelections, often complained, "Intellect is not here," and that he spoke to a deaf audience. As the student advanced in years, his acuteness was as extraordinary in canvassing opinions, as his industry had been unrivalled in collecting facts: his capacious mind embraced the whole circle of science; and, notwithstanding his pertinacity in rejecting every principle or tenet which he could not on reflection approve, his very singular merit failed not to recommend him to the discerning admiration of Plato, with whom he continued to reside twenty years, even to his master’s death; alike careless of the honours of a court, to which the rank and conditions of his family had often led him the road in Macedonia; and indifferent to the glory of a name, which his great abilities might have attained by establishing a separate school, and founding a new sect in philosophy. While Aristotle thus attended to the improvement of his mind, he did not neglect whatever might adorn his person. His figure was not advantageous; he was of a short stature, his eyes were remarkably small, his nose was high, his limbs were dis proporcionably slender, and he tiptoed or flamed in his speech. For his ungracious perfunctory Aristotle is said to have been anxious to compensate by the finery and elegance of his drees: his mantle was splendid; he wore rings of great value; and he shaved both his head and his face, while the other scholars of Plato kept their long hair and beards. This fondness for drees, however, neither altered his character, nor interrupted his ardent passion for knowledge. When he was about six and thirty years of age, he left his master Plato. Of that fage he always spoke with a degree of respect approaching to veneration. Soon after Plato’s decease, Aristotle wrote verses in his praise, and erected altars to his honour. Thus it is inscribed by Aristotle on the monument of his master, is preferred in a Latin version of an ancient life of Aristotle, written in Greek, and ascribed by some to Ammonius, and by others to Philo- ponus, and it is as follows:

"Gratia Aristoleos fruct hoc altare Platonii,
Quem turbae injuxit vel celebravit nefas."

"To Plato’s sacred name this tomb is reared,
A name by Aristole long revered!"

Far hence, ye vulgar herd! nor dare to stain
With impious praise this ever-hallow’d fane!"

These extraordinary tokens of respect on the part of Aristotle, afford a presumption amounting almost to certainty, that there is no truth in the relation of which Aristothenes is said to have been the original author, and which has been transmitted by Aelian, Diogenes Laertius, and others, that Aristotle gave great offence to Plato by the effeminate elegance of his drees, and by his pertness and loquacity; and that in refutation of the preference manifested by his master in favour of the Lyceum and Speuceus, he hit out into the school perplexed Plato at the age of eighty, when his faculties were failing, with subtle questions, drove him from his academy, and took possession of the chair, till it was reclaimed for Plato by his disciple Xenocrates. In the Latin translation of the life of Aristotle above mentioned, this

columny is charged on Aristothenes, who, as Simias observes, entertained a personal enmity against Aristotle, for preferring Thrasippus to him in the faculty of logic. For the situation that Aristotle instituted a new school before Plato’s death, we have, therefore, no sufficient authority. It has been also related by Aelian, (Var. Hist. l. v. c. 19.) whose testimony, indeed, does not deserve implicit credit, and also by Athenæus (Diopnoiph. I. viii. p. 574.) that Aristotle, in his youth, was so much addicted to pleasure as to spend his patrimony; that he afterwards entered into the army; and abandoning a military life, professed medicine, and practiced pharmacy; till at length he was led by accident to turn his attention to philosophy. But the age at which he was admitted into the academy, and under circumstances, very much vouched the credibility of this account. The conceptions which Aristotle had formed, at the time of his master’s death, with some of the most illustrious, as well as the most extraordinary, persons of his own or any age, might naturally inspire him with the design of leaving Athens, after he had lost the philosopher and friend whose fame had first drawn him thither, and whose influence had so long retained him in that celebrated city. Aristotle might have been to him the ascent to the succession in his deceased master’s chair at the academy; and upon the election of Speutippus, disappointment and disgust might have furnished additional motives to his leaving Athens. Whatever might have been the cause in this respect, Aristotle, while a boy at Atarina, had contracted an intimacy with Hermias, who, originally in a state of servitude, had been enabled by the bounty of a patron to procure the study of philosophy; and having become a fellow-student with Aristotle at Athens, soon united with him in the bands of affectionate esteem, which finally cemented into firm and unalterable friendship. Aristotle through life pursued the calm and secure paths of science, but Hermias ventured to climb the dangerous heights of ambition. His enterprising spirit, seconded by good fortune, raised him to the sovereignty of Attac and Attarina, Greek cities of Mytia. Thither, at the invitation of his royal friend, Aristotle repaired. At Atarina he found the wish of Plato realized; and in his friend Hermias, philosophy feated on a throne. In that happy situation near three years enjoyed the inexpressible happiness of seeing his enlightened political maxims and sentiments in the virtuous reign of his fellow-student and sovereign. But Hermias being afterwards deposed, Aristotle was obliged to fly. When Hermias was put to death by Artaxerses, king of Persia, Aristotle erected a statue of his friend in the temple of Delphos, and wrote in praise of him an epitaph, and a hymn to virtue; of which we have an elegant translation, with ingenious remarks, in bishop Hurd’s Notes on Horace’s Art of Poetry, v. 219. Aristotle, on this occasion, escaped to Mytlen on the isle of Lesbos, in company with Pythias, the kinswoman and adopted daughter of the king of Attac and Atarina, but now miserably fallen from the lofty expectations in which her youth had been educated. But this sad reverse of fortune only endeared her the more to Aristotle, who married the fair companion of his flight in his thirty-seventh year; which is precisely that age pointed out by himself as the fitted, on the male side, for entering into wedlock. Pythias died shortly afterwards, leaving an infant daughter, whom Aristotle named after a wise and truly beloved friend, who repaid his affection with the most amiable sensibility. Aristotle was now distinguished throughout Greece, and Philip of Macedon, acquainted with his fame, and apprized of his merits, early designed to request his acceptance of the tuition of his son Alexander, and at length prevailed on him to undertake the charge,
charge, in the fourth year of the 10th Olympiad, or the 3418 before Christ, when Alexander was fourteen years of age. See Alexander.

In the education of Alexander, the Stagirite spent near eight years, or five (Julian Hist. B. xii. c. 16.), during which period, in an office of much delicacy, he enjoyed the rare advantage of giving the highest satisfaction to his employers, while he excited the warmest gratitude in his pupil. But the ambition of Alexander had early taken root, and the peculiarities of his character had displayed themselves in a very public and very important transaction, which happened long before the Stagirite arrived at the court of Pella. This was his intercourse with the Persian ambassadors, which has been mentioned under the article Alexander. In training such a youth, says Dr. Gillies, the Stagirite had a rich field to cultivate; but he could only hope to give a new direction to passions, which it was too late to moderate or control. In his treatise on politics, he has carefully delineated the plan of education best adapted to persons of the highest rank in society; and, in performing the task assigned to him by Philip, this plan was to be skillfully modified, by adjusting it to the peculiar circumstances and extraordinary character of his pupil. Alexander's bosoms could not be conquered, but it might be made to combat on the side of virtue; if he was angry, it was proved to him that anger was the effect of want, and the mark of inferiority. His love for military glory, which, while it is the idol of the multitude, will always be the passion of the great, could neither be restrained nor moderated; but, to rival this tyrant of his breath, still more exalted affections were inspired, which rendered Alexander as much superior to conquerors, as conquerors themselves, superior to the lowell of the vulgar. Agreeably to a maxim inscribed in that book of Aristotle's politics which relates to education, the two years immediately following puberty constitute that important period of life, which is peculiarly adapted for improving and strengthening the bodily frame, and for acquiring that corporeal vigour which is one main spring of mental energy. During this interesting period of youth, with the proper management of which the future happiness of the whole life is so intimately connected, Aristotle observes that the intellectual powers ought indeed to be kept in play, but not too strenuously exercised, since powerful exertions of the mind and body cannot be made at once, nor the habits of making them be simultaneously acquired. In conformity with this principle, Alexander was encouraged to proceed with alacrity in his exercises, till he acquired in them unrivalled proficiency; after which, the whole bent of his mind was directed to the most profound principles of science. Aristotle having directed the studies of his pupil to such subjects as expanded and invigorated the understanding, proceeded to those which regulate private and public conduct. He carefully instructed his pupil in ethics and politics. He wrote to him, long afterwards, a treatise on government; and exhorted him to adjust the measure of his authority to the various characters of his subjects, agreeably to a doctrine which he frequently maintains in his political works, that different nations require different modes of government, respectively adapted to their various turns of mind, and different habits of thinking.

The influence which Aristotle acquired with his royal pupil he employed to beneficent purposes. One distinguished instance is his conduct to his native country. See Alexander, Aristotelia, and Stagira.

After the most intimate communication during the space of eight or nine years, the pupil and the preceptor separated for ever, to pursue, in a career of almost equal length, the most opposite paths to the same immortal renown; the one by arms, the other by philosophy; the one by gratifying the most immoderate füll of power, the other by teaching to despise this and all similar gratifications. During his earlier triumphs, terminated in the course of ten years by his premature death, Alexander gave many illustrious proofs of gratitude to the virtuous director of his youth. Although the tutor declined accompanying his pupil in this expedition, their mutual regard was maintained by a friendly correspondence; and the conqueror furnished the philosopher with materials for his Natural History, by sending him, at a great expense, from different countries, a large collection of animals. See Plin. H. N. i. viii. c. 16. Athen. I. ix. However, in a subsequent period, Alexander's resentment against Callisthenes was transferred to Aristotle, and a mutual alienation took place between the philosopher and the prince.

Having taken leave of the Macedonian capital, Aristotle returned to his beloved Athens, where he spent thirteen years, almost the whole remainder of his life, instructing his disciples, and improving the various branches of his philosophy. Finding the academic chair occupied by Xenocrates, the successor of Speusippus, he obtained permission to apply to the purposes of public instruction a large building in the suburbs of the city, called the Lyceum, which had been used for military exercise. Accordingly, about the second year of the 11th Olympiad, or the 337th year before Christ, he opened his school, and founded a new sect of philosophers, denominated, from the circumstance of his walking when he delivered his lectures, Peripatetics. Here he delivered his acratic, acronomic, or coterie and exotic philosophy; the former, consisting of physics and logic, and delivered to a select audience; the latter, composed of rhetoric, ethics, and politics, and delivered to the public at large. See Akroates. The talents and virtues of Aristotle exposed him to envy and calumny, and the found wisdom of his philosophy excited the hatred of the many pretenders that naturally abounded in such a refevor of literature as Athens. He regarded with equal contempt, vain pretenders to real science; or real professors of sciences which he deemed unproductive of any beneficial purpose.

"He fought," (says his modern biographer and interpreter), "only for truth, and was careless of the obstacles which stood in his way to attaining it, whether they were found in the errors of philosophers, or in the prejudices of the vulgar. Such a man, in such a city as Athens, where, since the days of Socrates, the learned taught publicly, and converted freely with all descriptions of persons, could not fail to have many rivals and many enemies. Sophists and ficionists, footstrollers and satirists, and that sort of wcoe, satirical historians, heaped obloquy on a character, the ornament of his own age, and desired to be the instructor of poltcrity." In pretended piety, the enemies of Aristotle found the means of accusing a sage, who was incomparable wisdom corrodéd their envy. After having taught thirteen years in the Lyceum with the highest reputation, he was charged with irreligion before the Areopagus by the mower, Eumenides, abettéd by Demophilus, a person of weight in the republic, and both of them inflaméd to this cruel prosecution by our philosopher's declared enemies. The heads of the accusation were, "that Aristotle had humoured the virtues both of his wife Pythis and of his friend Hermias, with such ceremonies and honours as the piety of Athens justly revered for the majesty of the gods." Though these accusations were extremely frivolous, yet Aristotle was condemned, but escaped punishment by leaving the country. After making a rhetorical defence of himself, and accompanying it with a proverbial line:

"O Xvs"
The works of Aristotle are referred to three heads, God, Nature, and Man. Whatever reasons relate to theology, though scattered in different treatises, may be referred to his metaphysics; a name unknown, indeed, to Aristotle, but given to his theological works by his editors, and importing, that the fourteen books which bear it, should immediately follow his numerous treatises on the subjects of physics or natural philosophy; that we may not reft satisfied with the knowledge of bare effects, but proceed to the principles of the causes, and the primary cause of all. In connection with his "metaphysics," we may mention his treatise "of the universe and its causes," and "a refutation of Xenocrates, Zeno, and Gorgias." Aristotle's doctrines concerning Being considered abstracdy, concerning deity, and concerning the soul, are comprehended under the term "metaphysics," because they "go beyond" sensible bodies to objects that are perceived only by the understanding, and this branch of science is called by him "the first philosophy." The doctrine of Being, or ontology, is nothing more than the definition and arrangement of general terms; and from a series of definitions Aristotle deduces such corollaries as necessarily follow from them. The first principle or axiom, as he states it, of this doctrine is, that it is impossible that the same thing should be, and should not be, in the same subject, at the same time, and in the same respect. To this universal principle, which is itself incapable of demonstration, because it is a primary truth, all demonstration may be reduced. Being exits either by itself, or by accident; on the other hand, all properties and accidents depend; but of the latter no certain knowledge can be obtained. Being may be either in power, or act; and power is either active or passive. The former is the principle of motion or change, and the latter contains in the subject upon which active power is exercised. Power remains when it is not exerted in action; and action takes place when a thing is otherwise than when it was in power. Again, Being is either notional, as it is conceived in the mind, or real, as it exists in nature. To unity, which is one of the properties of Being considered with respect to numbers, are nearly related, identity, equality, and similarity. Being also admits of genus and species. The doctrine of Aristotle concerning the First Mover, is more important. From the circular motion...
in an organized body, possesses life potentially, but does not move itself. It is not a rare body, composed of elements; for it differs from those in having perception. It has three faculties, the nutritive, the sensitive, and the rational. The first is that by which life is produced and maintained. The second is that by which we perceive and feel, without perceiving itself or its organs, but some external object by the intervention of its organs, which are adapted to produce the sensations of sight, hearing, smell, taste, and touch. The external senses, by means of sensible objects or forms, are immaterial, perceive objects as wax receives the impression of a seal, without receiving any part of its substance; but the difference of these objects is perceived by the common or internal sense. Perception differs from intellect; the former being common to all animals, the latter belonging to a few. Fancy is the perception produced by the immediate action of the senses. Memory is derived from fancy, and has its seat in the same power of the soul; being the effect of some image impressed upon the soul by means of the senses. Remembrance is that mental facility, by which we search for anything which we wish to recollect, through a series of things nearly related to it, till at last we call to mind what we had forgotten. The intellect is that part of the soul by which it understands; and it is passive and active; the former being the seat of the species or forms of things, and the latter the efficient cause of all knowledge. The principle of local motion is the desire or avarice which arises from the practical exercise of the understanding; and it produces either rational veneration or seditive appetite. The production of animal life arises from the union of the nutritive soul with animal heat. Life is the continuance of this union, death its dissolution.

As to the Soul or first principle of animal life, and of all perception, intelligence, or action, Aristotle was at a loss in explaining its specific nature. He could only define the mind to be that principle by which we live, perceive, and understand. When he attempted to form an abstract conception of this principle, he was perplexed; and he was so unacquainted with the nature of this substance, or so undeceived in his opinion, or perhaps so anxious to conceal it, that he recurred to the use of a term, which merely expressed the confused idea which he had formed to himself from observing its operations, and called ὑποθέσεα, or perfect energy, designating some unknown source of seditive and rational life in certain organized bodies. It does not certainly appear from the writings of Aristotle, whether he thought the soul of man mortal or immortal; but the former appears most probable, from his notion of the nature and origin of the human soul, which he conceived to be an intellectual power, externally transmitted into the human body from an eternal intelligence, the common source of rationality to human beings. We have no evidence that he supposed the union of this principle with any individual to continue after death.

Aristotle's histories of the heavens and of the earth; of animals, plants, and minerals; and even of man, considered merely as a material and sentient being, may, comfortably with modern language, be arranged under the head of Nature; though, in Aristotle's own acceptance, that term has a more limited sense; and is confined to terrestrial objects, and those existing between this earth and the lunar sphere.

The physical writings of Aristotle are the following: "Of Physics, or the Doctrine of Nature," explaining the principles and properties of natural bodies: "Of Heaven;"* treating of the universe, the celestial spheres, and simple bodies or elements: "Of Generation and Corruption;"* "Of Meteorology;"* "Of the History of Animals;"*
Aristotle.

"Of the parts of Animals and their Causes;" "Of the Production of Animals;" "Of the Pigs of Animals;" "Of the Soul, or Vital Principles;" "Of the Senses;" "Of Memory;" "Of Sleep;" "Of Dreaming;" "Of Animal Motion;" "Of the Length of Life;" "Of Youth and Old Age;" "Of Respiration;" "Of Plants;" "Of Breath;" "Of Marvellous Facts;" "Of Physiogomy;" "Of Sounds;" "Of Colors;" and "Problems."

In Aristotle's style of thought, the principles of nature are neither the "similar parts" of Aracandre, nor the "atoms" of Leucippus and Democritus, nor the "sensible elements" of Plato, nor the "party" of Pythagoreans, nor the "ideas" of Plato, but they were the right following, viz., "form, privation, and matter;" the two former being contrary to each other, and the latter the common subject of both. Matter, according to Aristotle, is a primary substance without quantity or quality, form or figure, or any of the properties of body. This incorporeal matter, through its real connected by the Pythagoreans, Aristotle professed, and in his own invention of the form of the heavens, the first who had discovered the true principles of bodies. Form is the peculiar nature or essence of any thing, or that which makes it to be what it is. Privation is the absence of form, so that matter and form are the constituent principles of things, and privation is accidentally associated with them. In order to unite matter and form, Aristotle for this purpose conceived in his mind a vague notion, which he has very obscurely and unsatisfactorily explained, of some internal cause of motion and arrangement, to which he applied the term "nature." Causes are distinguished by this philosopher into four kinds: material, of which things are made; formal, by which a thing is that which it is, and nothing else; efficient, by the agency of which anything is produced; and final, or the end for which it is produced. Substances he divides into eternal, as the heavens which revolve round the earth with a circular motion peculiar to the celestial spheres; and perishable, as animal or terrestrial bodies. The heavenly sphere has neither gravity, nor gravity, is liable to no change, and is eternal. Its natural motion is circular, but there are other spheres which move in a contrary direction to this, in order to produce the vicissitudes of terrestrial things. The motion of the first sphere, or the "primum mobile," is equal and uniform: this and the first mover being eternal and immutable. The stars are of the same nature with the spheres that support them, but more dense, and send a light and heat to the air, and then to the inferior world, by means of friction; and they are moved in consequence of the motion of the spheres, in which they are placed. The earth is spherical, and immovably fixed in the center of the motion of all the spheres. The first sphere revolves with the greatest velocity from west to east, and the inferior spheres in a contrary direction. The velocities of the spheres of the seven planets are inversely as their distances from the first sphere. The world, according to this philosopher, is finite and eternal; and there is only one world. Bodies, according to his system, are either simple elements produced by the union of the first matter and form, or compound bodies produced from the combination of elementary bodies. The elements are four, namely, fire, air, water, and earth. The two principles of motion are gravity and levity; by the former, bodies descend towards the center of the world, and by the latter, they rise towards the heavens. The element of earth has simple gravity; that of fire, simple levity; and air and water partake of both. Compound bodies suffer a perpetual succession of diffusion and production; and this change is effected by the action of the circular motion of the heavens, by means of which the sun and stars, which are the immediate agents in production and diffusion, approach towards or recede from the earth. An action and a passion that are reciprocal arise from the mutual contact of different bodies. In animal bodies there are certain primary qualities, some active and others passive, which constitute their specific difference. Of this kind are heat and cold, moisture and dryness, heaviness and lightness, hardness and softness, roughness and smoothness, and the like. From the union of the two off the latter qualities, the elements are formed, as fire, heat and dryness; air, from heat and moisture; water, from cold and moisture; and earth, from the union of air and dryness. All the elements may be transmuted; and all mixed bodies are formed by the combination of all of them. From the general principle of production and diffusion, and from the mutual action and passion of the simple qualities, Aristotle endeavours to assign the causes of natural appearances, and to explain the nature of mixed bodies, both perfect and imperfect. In his speculative philosophy, Aristotle displays an extensive practical knowledge of nature. His writings in natural history are a continued chain of physical and anatomical facts, which appear to have been the result of accurate observation. He collected by diligence, and by the assistance of others, and particularly of Alexander his pupil, a great number of natural bodies which he accurately examined; and he appears to have himself collected, or to have been present at the dissection of, many animals, especially of fishes.

Upon the philosophy of man, as our author calls it, that is, of man considered as a social and rational being, endowed with sentiment, affection, and intellect, Aristotle's writings are as clear and copious as they are solid and satisfactory. His treatises on logic, ethics, and politics, as well as his books on rhetoric and poetry, may all be referred to this one head, and viewed as connected parts of one great system of knowledge. In the most important, "ethics," contained in ten books to Nicomachus, seven to Eudemos, two intitled "the greater morals," and a small part comprehending definitions of "virtues and vices," he considered, in the first place, their object, to wit, happiness; and afterwards the faculties of the mind, their exertions and determinations which tend to produce happiness. The excellencies of our species, he observes, all refer either to the understanding or the will, the first producing reason essentially in itself, the second is capable of being combined and affiliated with this divine principle. From the two powers of the understanding and the will, are respectively derived two classes of virtues, the intellectual and the moral. Sagacity, penetration, intelligence, wisdom, are virtues of the understanding; gentleness, temperance, fortitude, justice, are virtues of the heart. The former class consists in the proper disposition and habit of the intellectual part of the soul; the latter in the proper disposition and habit of the desires and affections, which being formed subordinate to reason, and capable of conforming to its dictates, then only perform their duty, when, like obedient subjects, they cheerfully observe the commands of their sovereign. The intellectual virtues depend chiefly on education and exercise; the moral proceed entirely from habit, from which they derive their name. It is by practising justice, that we become just; by practising temperance, that we become temperate; by practising courage, that we become courageous. Hence the wondrous power of legislation and early instruction, by which the Cretans, the Spartans, and some other nations were horribly distinguished among the rest of mankind. Virtue is a practical art, and like all practical arts, can be preferred by practice only. It is neither
her natural, nor contrary to nature. We are born capable of attaining it, but the invaluable attainment must be made and perfected by habit. The virtues depend on the propriety of the affections from which they arise; and live in a mean between the extremes of too much and too little. Thus, to fear everything is cowardice; to fear nothing is rashness; courage requires that we should fear only such objects as are truly formidable, and only in that degree in which they ought to be feared. In the same manner, he who is too much affected by objects of pleasure, and feizes every opportunity to enjoy them, is called inconstancy; he who is too little affected by such objects, and refuses every opportunity to enjoy them, may be called insensible. Temperance teaches us to pursue only such pleasures as we ought, at proper times, in proper places, and on proper occasions. According to the same view of things, generosity lies in the middle between avarice and prodigality; modesty, between pride and diffidence; mildness, between irefulness and softness; magnificence, between ostentation and parsimony; popularity, between forbidding disdain and officious adulation; in a word, every virtue consists in a mean equally remote from two vicious extremes. Considered as the quality of an action, virtue consists in the propriety of that affection from which the action proceeds, when the affection is neither too strong, nor too weak, but has precisely that degree of strength which right reason teaches us to approve. As the quality of an action, virtue consists therefore in mediocrity; but as the quality of a person, it consists in the habit of this mediocrity, since in judging persons and characters, we regard not particular acts and feelings, but such acts and feelings as are frequent and habitual. There are many, and those the most important virtues, the exercise of which is not in the first instance attended with pleasure. To support labour, to endure pain, to encounter difficulties and dangers, which wisdom and fortitude on many occasions require, are not obviously recommended by any natural desire; nor is the practice of such duties immediately agreeable. It is full less agreeable, at first, to curb and restrain our natural appetites for pleasure, which is the proper office of temperance; nor can that vigilant circumspection, and ever-watchful attention to the most remote concealed dangerous actions, which is essential to the virtue of prudence, be acquired without trouble and care, without many painful efforts and difficult struggles. Yet it is the nature of all those virtues, as well as of the hardest lessons of justice, patriotism, and friendship, to become through habit agreeable; and the only sure test that we have acquired them is, that they are practiced with pleasure. The moral virtues cannot, according to Aristotle, subsist without some mixture of the intellectual; but the latter may subsist alone and independent; and according to both Aristotle and Plato, the purest and most permanent felicity of which man is susceptible, results from the exercise of his rational powers upon subjects of abstract speculation. The labours of the statesman or general, the exertions of the legislator or patriot, all refer to some end or purport, the attainment of which may be prevented by fortune, or frustrated by the weakness or wickedness of man. The practice of justice, generosity, temperance, and fortitude requires many conditions, and supposes a variety of situations, which it is not always in our power to command. The just or generous man must have objects to whom he may distribute his justice or generosity; he must possess the means by which to exercise those virtues which all participate of frail mortality; since, though directed by prudence, they are impelled by passion, and result from the exigencies of our present corporal state. But the energies of contemplative wisdom are pure and simple, like the intellectual source from which they spring. Not subjection to remote purpores or contingent ends, they are immediately agreeable on their own account, and on every side round and complete in themselves. Such are the principal doctrines to be found in Aristotle's "Ethics."

Histories of "Politics," comprehending eight books, in the very full paragaphs, in a few plain words, states the only legitimate purpore of political establishments. Every political society forms, it is plain, a sort of community or partnership instituted for the benefit of the partners. Utility is the end and aim of every such institution; and the greatest and most extensive utility is the aim of that great association comprehending all the rest, and known by the name of the community.

Having stated and explained the grand purposes of society, he considers the best systems of means for attaining those purposes, and traces the distinction of ranks which arises from the inequalities of individual talents, virtues, and fortune. Political institutions are best fitted for promoting human happiness, when they are most suitable to the opinions and sentiments of the people, and the circumstances of the times and country. No one political system will equally suit all situations, and scarcely any two. Government being an arrangement, the best government must be the best arrangement, and the best arrangement is that in which the materials to be arranged are the best fitted both to receive and to preserve. The materials of the statesman or legislator are the number and character of his people, and the extent and quality of his country. The excellence of a commonwealth, however, is not to be estimated by its population as such or extent, but by its fitness for performing its proper functions; the same energies and habits constitute the happiness both of individuals and of nations. Men make governments, not governments them; nor by any fyltem of political arrangements can a happy commonwealth be constituted from fools or cowards, profligates or knaves. The bricks must be first prepared, before the edifice can be reared. The human character is a compound of good and evil; the former arises from the balance of the affections, under the control and guidance of reason, the latter results from passion operating without restraint. That government is the best, which most powerfully stimulates the energies of the people to beneficent purposes, and represses them from base pursuits. That must be a system of freedom in the first place tempered by order, and moderation in the second. Mixed governments, widely formed and balanced, best correspond to the state of mankind. Democracy, though apparently most agreeable to the rights of man, is not the best adapted to his wants; the general will unrestrained is apt to run into excess, and precipitate in deliberation, to be tardy in execution. While simple democracy is inexpedient for the people themselves, simple aristocracy and simple monarchy are equally inexpedient; and being the subjection of the many to a few or to one, are moreover unjust. For these reasons Aristotle recommends a constitution that combines and balances the three orders in a most generally likely to promote the good of society. To his treatise on politics, Aristotle has added two books on "Oeconomics," in which he has treated in a similar way, on the management of domestic concerns.

In "Logic" or the art of reasoning, in which Aristotle has the merit of being an inventor, his writings are, "The Categories," or ten general heads of arrangement; "of Interpretation," explaining the philosophical principles of Grammar; "Analytics," including the whole doctrine of syllogisms and demonstration; "Topics," or common-places of arguments; and "Sophistic Refutation."
tions," teaching the art of replying to an opponent. These pieces collected in one volume, are called the " Organon of Aristotle." The arrangement of the ten Categories (which see) was borrowed from the Pythagorean school, and is laid to have been first invented by Archytas of Tarentum, and communicated to Aristotle by Plato, who conveyed this Pythagorean in Italy. The art of syllogistical reasoning (see Syllogism), was perhaps altogether the invention of Aristotle; and, whatever may be thought of its utility, it must be allowed to have been a wonderful effort and display of ingenuity. On the invention and application of syllogisms, Aristotle treats with a degree of minuteness and facility, which produces obscurity. His logical diffutations would have been clearer, as well as more concise, if he had carefully distinguished between words and ideas, and confined his attention chiefly to the latter. The reader will find a distinct account of the logic of Aristotle, by Dr. Reid, in the second volume of lord Kaimes's Sketches of the History of Man. Edinb. 4to. 1774, p. 165. See also the articles Demonstration, Dialectics, Logic, Proposition, Syllogism, &c. in this work.

The "Rhetorik" of Aristotle is comprised in three books, in which the principles of eloquence are investigated, and the whole art of oratory taught with so much depth of investigation, and accuracy of arrangement, that the work has been the basis of all that has been since delivered upon the subject by Cicero, Quintilian, and later writers. See Oratory. Another treatise, addressed to Alexander, is added, in which are distinctly considered the various species of discourse belonging to the several heads of deliberative, demonstrative, and judicial pleading.

On the subject of "Poetry," the "Poetic" of Aristotle affords a correct analysis of the constituent parts of the drama and the epic; and contains general principles and particular observations, which could only have been written by a master in criticism.

The position "Mathematics," which Aristotle has left, are, an obscure, and probably imperfect treatise on "Imcomputable Lines," and a book of "Quiddles in Mechanics."

Although among the works of Aristotle, nothing written expressly on Music has come down to us, if we except his tract ποτ εκποτισία, and the nineteenth section of his Problems; yet we find from these, and from his works in general, that he had thought much and deeply on the subject. Indeed among the titles of two hundred and fifty of his lost books, which have been collected by Fabricius, a work on Music appears, Ηθικ Μουσική, written expressly on the subject. We shall therefore do the art and science of Music the honour to rank this great, this full of men, among its benefactors.

For a further account of the reception, progress, and decline of the Aristotelian philosophy in the middle and in later ages; see PERIPATETICS. See also Logic, Metaphysics, Philosophy, Physics, &c.

Having given a curious account of the life and writings of Aristotle, to which his distinguished talents, his rank as an author, his personal merit, and his reputation, and influence in the various departments and faculties of literature for many ages, gave him a just claim, and without which a work of this nature must have been essentially imperfect; it may not be improper to collect a few particulars that may serve to aid us in appreciating his literary character as well as the importance and utility of his writings. Whilst we disregard the fictions of calumny and panegyric, we shall not unduly extol his talents and virtues, nor degrade them below their just standard. On the one hand, no credit can be attached to the abuse of Timeus the Tauromenite, who represents him as a pretender to learning, a vile parasite, and an habitual gluton and drunkard; nor to the calums that were raised against his reputation, in consequence of the honour he paid to the memory of his friend Hippas, and that of his wife Pythias; and, on the other hand, there is no foundation for attributing his extraordinary wisdom to divine revelation; nor are we sufficiently authorized to say with the Jews, that he gained his philosophy in Judaea, and borrowed his moral doctrine from Solomon; much less that he was of the seed of Israel and the tribe of Benjamin; or with the Chaldaeans, that he was a special messenger, supernaturally ordained to prepare the way for divine revelation, and that we are indebted to the aid of his philosophy for the extent and accuracy of our acquaintance with the sublime mysteries of religion. Although we cannot believe that just before his death, he delivered to his friends concerning "the contempt of death, and the immortality of the soul;" that in his last moments he dictated a book in order to throw, that wise men need not lament their exit from this tenement of clay, of which book, an Hebrew version of the Arabic translation from the Lippus of original was rendered into Latin, about the year 1500, by Maund, son of the emperor Frederic I.; yet we cannot allow that either his doctrine or his life warranted his being considered as an advocate for immortality or impiety, much less that he was the most infamous of human beings. No one was his virtues of that exalted kind which commend admiration, nor his faults to criminal as not to admit of some apology. He may, perhaps, be justly cenured for having taught his pupil Alexander principles of morals and policy, which were accommodated to the manners of a court, and which might be easily rendered subservient to his ambitious views. And it cannot be doubted, that his philosophical doctrines concerning nature were not favourable to the public forms of religion. Few will now be found such extravagant admirers of Aristotle as to join us, and entailing him as the fletcher of nature," and as having dipped his pen in intellect; and yet all must admit, that he possessed a profound and penetrating genius, and a wonderful talent for calling ideas, defining terms, and analyzing the faculties and operations of the human mind. He had also, without doubt, an extensive acquaintance with natural objects, and he was a diligent observer of physical and moral phenomena. If he had bestowed that attention on the discrimination and arrangement of natural bodies which he devoted to words, he might have been a Linnaeus; or if he had, according to the modern mode of philosophizing, deduced general principles from facts and experiments, he might have been a Bacon, a Boyle, or a Newton. Instead of doing this, his ambition to stand distinguished among philosophers as the founder of a new sect induced him to try his strength in abstruse disquisitions, and to indulge a too daring spirit of contradiction and innovation. His object was to erect his own edifice upon the ruin of every other structure. As lord Bacon has wisely remarked (De Anm. Scient. I, ii, c. 4,), "while a few assumptions he thought he could not reign secure, unless all his brethren were slain. Innovating rather in words than in reality, and determining to oppose his new philosophy to ancient tenets, of which many were founded on truth and experience, he sometimes misrepresents the opinions of former philosophers; sometimes selects those which were most trifling, or most easily refuted; and sometimes has recourse to uncertain principles and vague terms, in hopes that obscurity might be mistaken for novelty. Having acquired the habits and manners of a high life at the court of Amynes to which his father introduced him, and having occasion, as preceptor to Alexander, to accommodate his
ARI

his philosophy to the ambition of the young prince with whole education he was enticed, he deferred the fanciful republic of Plato, and finding the morals of Socrates too confined for his purpose, framed a system of ethics for himself, which would allow full scope for the aspiring views of Alexander and his friends. Even the Syllogistic art, which was peculiarly his own, is very materially defective, tends to misled by multiplying hypothetical propositions, or by teaching the practice or detection of sophistry, and affords little or no assistance in the investigation and discovery of truth. The conclusion in every syllogism is, in fact, contained in the premises; if the premises have not been previously proved by other means than syllogistic reasoning, the conclusion is not established; if they have, the syllogism is unnecessary; so that, as Dr. Reid observes in his account of Aristotle's logic (ubi supra), other kind of reasoning, independently of observation and experiment, only carries a man round, like a horse in a mill, without any real progress. Upon the whole, it has been observed by competent and candid judges, that the philosophy of Aristotle is rather the philosophy of words than of things, and that the study of his writings tends more to perplex the understanding with subtle distinctions than to enlighten it with real knowledge. The reception that was paid to him in the Arabian, Jewish, and Christian schools, was rather the means of obliterating than of aiding and promoting the progress of useful science. It was not, as an excellent biographer remarks, till mankind were emancipated from their vassalage to Aristotle, that the human mind assured its native freedom and dignity, and that genuine science began to enlighten the world. The principal writings of Aristotle have been often separately printed, and of his entire works, the chief editions are: 6 vols. fol. ap. Ald. Venet. 1498. 8 vols. 12mo. Ald. 1552. 10 vols. 4to. Sylburgii, Franc. 1587. Gr. and Lat. fol. Caeraboni, Lugd. 1550. 1646. fol. Genet. 1625. 8vo. Lugd. 1597. 2 vols. fol. Du Val, Paris, 1629. 1634. Vid. Dib. Larer. t. i. p. 268. Dion. Halicarn. t. ii. p. 193. Suida, Fabr. Bibl. Græc. i. iii. c. 6. t. ii. p. 107, &c. Brucker's Hist. Phil. by Enf. vol. i. p. 355—288. Gen. Dict. ARISTOTUS, in Idiologia, a name given by Aldus and some other old writers to the fish which we call the fluke; Clupea Alfa. Linn.

ARISTOXENUS, in Biography, is the most ancient Greek writer on the subject of music that has come down to us. He was the son of a musician, whom some call Mnasias, others Spinathus. He had his first education at Mantinea, a city of Arcadia, under his father, and Lampus of Erythrae. He next studied under Xenophilius, the Pythagorean, and lastly under Aristothele, in company with Theophrastus. Suidas, from whom these particulars are transcribed, adds, that Aristoxenus, enraged at Aristotle having bestowed his school on Theophrastus, sought him ever after. But Aristoxenus the Peripatetic, in Enchiridions, excusses Aristoxenus in this particular, and affirms us that he always spoke with great respect of his master Aristotle.

From the preceding account it appears that Aristoxenus lived under Alexander the Great, and his first successors.

His Harmonics in three books, all that are come down to us, together with Ptolemy's Harmonics, were first published by Gavagesius, but not very correctly, at Venice, 1562, in 4to., with a Latin version. John Murinus next translated the three books of Aristoxenus into Latin, from the MS. of Joseph Scaliger, but, according to Melbonius, very negligently. With these he printed at Leyden, 1616, 4to., Nicomachus and Alpyius, two other Greek writers on music. After this Melbonius collected these musical writings together, to which he added Euclid, Bacchius senior, Aristides Quintilianus; and published the whole with a Latin version and notes, from the elegant press of Elzevir, Amst. 1652. The learned editor dedicates these ancient musical treatises to Christiana, queen of Sweden.

Aristoxenus is said by Suidas to have written four hundred and fifty-two different works, among which those on music were the most esteemed; yet his writings upon other subjects are very frequently quoted by ancient authors, notwithstanding Cicero, and some others, say that he was a bad philosopher, and had nothing in his head but music. The titles of several of the lost works of Aristoxenus, quoted by Athenæus and others, have been collected by Meursius in his notes upon this author; by Tondus and Mengel; all which Fabriicus has digested in alphabetical order. We shall here only mention such as concern music, which are upon subjects so interesting to inquirers into the merits of ancient music, that their loss is truly to be lamented. 1. "Of Perf. smokers on the Flute, and concerning Flutes and other musical instruments." 2. "Of the Manner of boring or piercing Flutes." 3. "Of Music in general." In this work, which was different from his Harmony, he treated not only of the rhythmical, metrical, organical, poetical, and hypercritical parts of music, but of the history of music and musicians. 4. "Of the Tragic Dance." With respect to the treatises of Aristoxenus that are come down to us, they are cited by Euclid, Cicero, Vitruvius, Plutarch, Diogenes Laertius, Athenæus, Arif. Quintilianus, Ptolemy, and Boethius. And as a musical writer, he is so much celebrated by the ancients, and so frequently mentioned by the modern, that his treatises which are extant, seem to deserve a particular attention. They are given by all his editors as divisions of one and the same work; but the two first books are evidently independent fragments. The second book is not a second, but another half part. It is surpising that Melbonius should regard it as a continuation, and wonder in his notes, that Porphyrus should quote the second book as the first. The second book is plainly the opening of another work, as appears by its beginning with an explanation of the subject, and a sketch of the order in which the author proposed to treat it, all which is done in the first book. It is likewise full of repetitions. There appears, however, through the cloud of bad readings, and all kinds of corruptions in the text, to be an accuracy, and an Aristotelian precision in these old books, which are not to be found in later writers, who seem to have all the negligence and inaccuracy of compilers.

As Pythagoras and Aristoxenus were heads of the two most numerous and celebrated musical sects in antiquity, we shall endeavour to make such of our readers as are curious in these matters, acquainted with their different tenets.

The Pythagoreans, by their rigid adherence to calculation, and the accurate divisions of the monochord, may be said to have trilled more to the judgment of the eye, concerning the perfection of consonance, than to that of the ear. Intervals, according to them, were consonant or dissonant, in proportion as the rates of the vibrations were simple or complex. Thus the octave was more perfect than the 4th, because the ratio of 1 to 2 is more simple, and more easily perceived, than that of 2 to 3, and the 5th, for the same reason, was more perfect than the 4th. It was upon this principle that they allowed of no deviation from the strict ratios of sounds. They left nothing to the uncertain judgment of the ear, which they thought so more able to determine a perfect consonance without a monocord,
menochord, than the eye to form a perfect circle without compasses.

Aribolexenus, on the contrary, referred everything to the ear. He thought the senses sufficiently accurate for musical, though not for mathematical purposes; and that it was absurd to aim at an artificial accuracy in gratifying the ear, beyond its own power of distinction. The philosophy of the Pythagoreans, their velocities, vibrations, and proportions, he rejected with contempt, as being foreign to the subject; substituting abstract causes in the room of experience, and making music lead the object of sense than of intellect.

According to these principles, his doctrine maintained, that concords were to be taken by the judgment of the ear only, and other intervals of which the ear was not able to determine the perfection, by the difference, or sum of concords. Thus the tone was the difference between the 4ths and 5ths: the ditone was taken by alternate 4ths and 5ths: as Ea, aD, DG, GC. Had he dropped here, nothing could reasonably have been alleged against him. But, taking the tone as a well-known interval, of which the ear, from the comparison of 4th and 5th, could judge with sufficient exactness, he made it the measure of all other intervals: of the greater by addition, and of the less by division. Thus the 4th contained, according to him, two tones and a half; the 5th, 3 and ½; the octave, consequently, 5 tones and 2 semi-tones, or 6 tones. And, further, the tone he divided into 2, 3, and 4 equal parts. By this process, as it is justly objected to him by Ptolemy, he acted inconsistently with his own principles, pretending to trust solely to the ear, and to exclude reason and calculation, at the same time that he was making a parade of both, in a way either totally useless and nugatory, or more complicated and difficult than that which he had rejected. If the ear is unable to determine the exact ratio of a concord, still less is it able accurately to bisept a tone; and that a tone cannot be numerically divided into two, or more equal parts, has long been demonstrated. It can only be done by geometrical and linear methods, more operose than the calculations of Pythagoras, and which, if accomplished, would give only false, incomprehensible, and tempered intervals. Aristolessenus seems to have been led into this inconstancy by his desire of distinguishing himself from the mere practical musicians of his time, whose inaccuracy and want of science he frequently speaks with great contempt.

The Pythagoreans, on the other side, were not without their errors. The principles were right, but they carried them too far, and forgot that they could not otherwise be known to be right, than as they were confirmed by the pleasure of the ear. How, for instance, did they know that the ratio from 2 to 3 was that of a perfect fifth but by the ear, which, upon repeated trial, found that interval most harmonious when produced by strings in that proportion? But it was the peculiar character of the Pythagorean philosophy, to erect abstract numbers and proportions into physical causes. Not content with purifying their principle of the simplicity of ratios, as far as experience warranted, and the ear approved, they set it up as an a priori principle, and rejected intervals which the ear pronounced to be concords, merely because they did not fall within the proportions which they chose to admit. The compound interval, for instance, of the 8th and 4th, though undoubtedly concord, they would not admit as such, because its ratio, 3: 8, is neither multiple nor submultiple, the only proportions they admitted as consonant, on account of their simplicity.

They are, indeed, charged both by Ptolemy and Aristolessenus, with sometimes assigning such ratios to intervals as the ear did not approve; but no blame is given. It would be injustice, however, to quit these famous musical theologians, without acknowledging that their physical doctrines concerning the production of sound, and the causes of gravity and acuteness, have been confirmed by modern philosophy, and their metaphysical speculations concerning the causes of consonance, adopted by modern writers of no inconsiderable reputation. Gen. Hist. Mul.

ARITHMANTY. See Arithmomancy.

ARITHMETIC, formed from αριθμός, number, the art of numbering; or, that part of mathematics, which considers the powers and properties of numbers, and teaches how to compute or calculate truly, and with expedition and ease. By some authors it is also defined to be the science of discrete quantity. It consists chiefly in the four great rules or operations of addition, subtraction, multiplication, and division: to which may also be added involution and evolution.

Besides these, for the purpose of facilitating and expediting computations, mercantile, astronomical, &c. several other useful rules have been contrived; as, the rules of proportion, progression, allocation, false position, fellowship, interest, barter, rebate, equation of payments, reduction, rare, and tetr, &c. But there are only applications of the first four rules. See these rules under their several heads, Addition, &c.

Concerning the origin and invention of arithmetic, we have very little information; history fixes neither the author nor the time. Some knowledge, however, of numbers must have existed in the earliest ages of mankind. This knowledge should be attributed to them, whenever they opened their eyes, by their own fingers, and by their glance, and by the variety of objects that surrounded them. At first, indeed, their powers of numeration would be of very limited extent; and before the art of writing was invented, it must have depended on memory, or on such artificial helps, as might most easily be obtained. To their ten fingers they would, without doubt, have recourse in the first instance; and hence they would be naturally led to distribute numbers into periods, each of which consisted of ten units. This practice was common among all nations, the ancient Chinese, and an obscure people mentioned by Aristotle, excepted. But though some kind of computation must have commenced at a very early period, the introduction of arithmetic as a science, and the improvements it underwent, must, in a great degree, have depended upon the introduction and establishment of commerce: and as commerce was gradually extended and improved, and other sciences were discovered and cultivated, arithmetic would be improved likewise. It is therefore probable, that if it was not of Tyrian invention, it must have been much indebted to the Phoenicians or Tyrians. Proclus, indeed, in his Commentary on the first book of Euclid, says, that the Phoenicians, by reason of their traffic and commerce, were the first inventors of arithmetic; and Strabo also informs us, that in his time it was attributed to the Phoenicians. Others, however, have traced the origin of this art to Egypt; and it has been a general opinion, sanctioned by the authorities of Socrates and Plato, that Thet or Thot was the inventor of numbers; that from hence the Greeks adopted the idea of aferbing to their Mercury, corresponding to the Egyptian Thot or Hermes, the superintendence of commerce and arithmetic. With the Egyptians we ought also to associate the Chaldeans, whose astronomical disquisitions and disco-
A R I T H M E T I C.

verses, in which they took the lead, required a considerable acquaintance with arithmetic.

From Ahas, in Egypt, as Josephus says, by means of Brahman. Here it was greatly cultivated and improved; information that a large part of the Egyptian philosophy and theology seems to have turned altogether upon numbers. Hence those wonders related by them about unity, trinity, the numbers seven, ten, four, &c. Effect, Kircher (in his Oedip. Egypt. tom. ii. p. 2) shows, that the Egyptians explained every thing by numbers; Pythagoras himself affirming, that the nature of numbers pervades the universe, and that the knowledge of numbers is the knowledge of the Deity. From Egypt arithmetic was transmitted to the Greeks by Pythagoras and his followers; and among them it was the subject of particular attention, as we perceive in the writings of Euclid, Archimedes, and others; with the improvements derived from them, it passed to the Romans, and from them it came to us.

The ancient arithmetic was very different from that of the moderns in various respects, and particularly in the method of notation. M. Goguet (Origin of laws, arts, &c. vol. i. p. 118) conjectures, that the ancient Greeks first used pebbles in their calculations; and in proof of this he adduces the word βραδος, (derived from βρίς, a little stone or pebble,) which signifies to calculate: and he also supposes that the word calculation is derived from the term calculus, little stones, used by the Romans in their first arithmetical computations. To this purpose it has been also alleged, that the Indians are at this time very expert in computing by means of their fingers, without the use of pen and ink; and that the natives of Peru, by the different arrangements of their grains of maize, surpafs the European, aided by all his rules, with regard both to accuracy and dispatch. The Hebrews and Greeks, however, at a very early period, and after them also the Romans, had recourse to the letters of their alphabet for the representation of numbers. The Greeks in particular had two different methods: the first resembled that of the Romans, which is sufficiently known, as it is still used for distinguishing the chapters and sections of books, dates, &c. See Characters. They afterwards had a better method, in which the first nine letters of the alphabet represented the first numbers from 1 to 9, and the next nine letters represented any number of tens, from 10 to 90, that is, 10, 20, &c. to 90. Any number of hundreds they expressed by other letters, supplying what they wanted by some other marks or characters: and in this order they proceeded, using the same letters again, with different marks to express thousands, tens of thousands, hundreds of thousands, &c.; thus approaching very near to the more perfect duodecuple scale of progression used by the Arabs, who acknowledge, as some have said, that they received it from the Indians. Archimedes also in his "Arenarius," used a particular scale and notation of his own. In the second century of the Christian Era, Ptolemy is supposed to have invented the sexagesimal numeration and notation, and this method is still used by astronomers and others for the subdivision of the degrees of circles. These several modes of notation above recited, were so operose and inconvenient, that they so limited the extent, and restrained the progress, of arithmetic, that it was applicable with great difficulty and embarrassment to the other sciences, which required its assistance. The Greeks (if we except Euclid, who, in his Elements furnished many plain and useful properties of numbers, and Archimedes in his Arenarius) contributed little to the advancement of this science towards perfection; its practical operations derived little benefit from their theory, abstract properties, and tedious divisions and divisions of numbers; and the imperfection of the art sufficiently appears from a treatise of Nichomachus, supposed to be written in the third century of Rome, and published at Paris in 1548; from the two first books of the Mathematical Collections of Pappus, of which only a small fragment remains; and also from that of Boethius, written at Rome in the fifth century after Christ, and still extant. From Boethius we learn, that some Pythagoreans had invented and employed, in their calculations, nine particular characters, which others used the ordinary signs, namely, the letters of the alphabet. These characters he calls after; and they are said, more correctly to resemble the ancient Arabic characters, which circumstance suggests a presumption of their authenticity. Indeed, the MSS. of Boethius, in which these characters, resembling those of the Arabic arithmetic, are found, not being more ancient than three or four centuries, confirm the opinion that they are the works of a copyist. Upon the whole, this treatise of Boethius does not warrant our rejecting the commonly received system with regard to the origin of our arithmetic; but if we suppose that the Arabs derived their knowledge of it from the Indians, it is more probable that it was one of the inventions which Pythagoras spread among the Indians, than that those persons should have obtained it from the Greeks. See Figures.

A compendium of the ancient arithmetic, written in Greek, by Plolius, in the ninth century, was published in Latia by Xylander, in the year 1556; a similar treatise was written soon after in Greek, by Jordanus Williusius; and a more ample work of the same kind was written by Jordanus in the year 1200, and published with a commentary, by Faber Stapuleus, in 1490. The same author also wrote upon the new art of computation by the Arabic figures, and called this book "Algorismus demonstratus." This book in MS. is still extant, according to Dr. Wallis, in the Saviour library at Oxford, but has never yet been printed. A treatise on arithmetic was also written by Johannes de Sacro Bofco, who died about the year 1256. The introduction of the Arabian or Indian notation into Europe, about the tenth century, made a material alteration in the state of arithmetic; and this, indeed, was one of the greatest improvements which this science had received since the first discovery of it. This method of notation, now universally used, was probably derived originally from the Indians by the Arabs, and not, as some have supposed, from the Greeks; and it was brought from the Arabs into Spain, by the Moors or Saracens, in the tenth century. Gerbert, who was afterwards pope, under the name of Silvester II, and who died in the year 1003, brought this notation from the Moors of Spain into France, long before the time of his death, or, if some think, about the year 960; and it was known among us in Britain, as Dr. Wallis has shown, in the beginning of the eleventh century, if not somewhat sooner. See Figures. As literature and science advanced in Europe, the knowledge of numbers was also extended, and the writers in this art were very much multiplied. The next considerable improvement in this branch of science, after the introduction of the numeral figures of the Arabs or Indians, was that of decimal parts, for which we are indebted to Regiomontanus; who about the year 1464, in his book of "Triangulorum Canonum," set aside the sexagesimal subdivisions, and divided the radius into 60,000 parts; but afterwards he altogether waved the ancient division into 60, and divided the radius into 10,000,000 parts; so that if the radius be denoted by 1, the lines will be expressed by so many places of decimal fractions as the cyphers following 1. This seems to have been the first introduction of
ARITHMETIC.

Arithmetic, binary, or dyadic. See Binary Arithmetic.

Arithmetic, common or vulgar, is that which relates to integers and vulgar fractions.

Arithmetic, decimal, or denary, is that which is performed by a series of ten characters or figures, in a ten-fold progression, as from 1 to 10, from 10 to 100, &c. including both integers and decimal fractions in the common scale of numbers. See Decimal.

The characters now used are the ten Arabic or Indian figures, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9; for the history of which see Figures, and Arithmetic, figura.

Arithmetic, dyadic, or dyadic, which proceeds from 1 to 12, or by a continual subdivision according to 12, and is much used by most artificers in calculating the value of their works; as bricklayers, carpenters, painters, tylers, &c.

Arithmetic, fractional, or of fractions, is that which treats of fractions both vulgar and decimal. See Fraction.

Arithmetic, harmonical, is that part of the doctrine of numbers, which relates to the composition, reduction, &c. of musical intervals.

Arithmetic of infinites, is a method of summing up a series of quantities, consisting of an infinite number of terms, or of finding their ratios. This method was first invented by Dr. Wallis, as appears from his treatise on the subject in the "Opera Mathematica," vol. i. p. 265, &c., where he shews its use in geometry, in finding the areas of superficies, and the contents of solids, and their proportions. This is also called the method of "Indivisibles," because magnitudes are here supposed to be resolved into their indivisible parts, or at least as far as there is any occasion to consider them as indivisible. See Indivisibles. But the method of Fluxions, which is an universal arithmetic of infinites, performs all this much more easily, and many other things, which the former will not reach.

Arithmetic, instrumental, is that in which the common rules are performed by means of instruments contrived for safe and dispatch; such are several sorts of scales, and sliding-rules; Napier's bones or rods, described under their proper article; the arithmetical machine of Pafcal and others; Sir Samuel Morland's instrument, the description whereof was published by himself, in 1672: that of Mr. Leibnitz, described in the Mifcellan. Berolin.; that of Polenus, published in the Venetian Miscellany, 1679: and that of Dr. Saundersen, described in the introduction to his algebra. Such is also the Algebror, or Stwan-pan of the Chinefe.

Arithmetic, integral, or of integers, is that which relates to integers, or whole numbers.

Arithmetic, literal, or algebraic, is that which is performed by letters, that represent any numbers indefinitely. See Algebra.

Arithmetic, logarithmic, is that which concerns logarithms, and is performed by tables of Logarithms; which see.

Arithmetic, logistical. See Logistical.

Arithmetic, mechanical, is that which is performed by means of a lever or balance. See Balance.

Arithmetic, numerous, or numeral, is that which gives the calculus of numbers, or indefinite quantities; and is performed by the common numeral or Arabic characters.

Arithmetic, palpable, is that which is performed by the sense of feeling, and practiced by blind persons. Dr. Saundersen, Lucasian professor of mathematics in the university of Cambridge, had contrived, for his own use, a commodious notation for any large numbers, which he could express...
express on his abacus, or calculating table, and with which he could very readily perform any arithmetical operations. His calculating table was a smooth thin board, somewhat larger than a foot square, raised upon a small frame, so as to be hollow; and this board was divided by a great number of equidistant parallel lines, and by others as many at right angles to the former. The edges of the table were distinguishable by notches, at the distance of about half an inch from one another, and to each notch belonged five of the aforementioned parallels; so that every square inch was divided into an hundred little squares. At every point of intersection the board was perforated by small holes, capable of receiving a pin; for it was by the help of pins, stuck up to the head through these holes, that he expressed his numbers. Of these pins he used two sorts, some larger, and others smaller; or, at least their heads were different, so that they might be easily distinguished by the touch. A large quantity of these pins, with the points cut off, was kept in two boxes, which were always near him when he calculated. In order to understand his mode of calculation, it is necessary to premise, that to every numerical figure a little square was appr opriated on the table, consisting of four of the little squares above described, and allowing a small interval between one figure and another; and this numerical figure was different according to the different magnitude or situation of the one or two pins which always composed it; for which purpose the ingenious professor had settled in his mind and strictly observed the following analogy or notation. A great pin in the centre of the square, its appropriate and invariable place, was a cypher, or 0, by which name we shall call it. Its chief office was to preserve order and distance among the figures and lines. This cypher was always present, except in the case of an unit, for expressing which, the great pin in the center was changed into a little one. When 2 was to be expressed, the cypher was restored to its place, and the little pin was put just over it. To express 3, the cypher remained in its place, and the little pin was advanced into the upper angle, on the right hand. To express 4, the little pin defended, and immediately followed the cypher. The expression 5, the little pin defended to the lower angle, on the right hand. For 6, the little pin retreated, till it was just under the cypher. For 7, this pin retreated into the lower angle, on the left hand. For 8, it ascended, till it was just before the cypher. For 9, the little pin ascended into the upper angle, on the left hand. In this manner all the digits were expressed by an easy and uniform notation, which might readily enough be apprehended and distinguished by the feeling. These digits or figures are represented in Plate I. Algebra, fig. 1. Dr. Saunderfon was able, by this contrivance, to mark, or write down, as we may say, any proposed number upon his table, and by lightly running his fingers over it, he could at any time easily read it, and know what it signified. The great pins or cyphers which were always placed at the center of the little squares, and most frequently at equal distances from one another, were a sure guide to direct him in keeping the line, in ascertaining the limits of every figure, and in preventing any ambiguity that might otherwise occur. As three of the erect parallels were sufficient for a single figure, so three or the transverse parallels would suffice for a line of figures, and the next three for another line, and so on, without any danger of interfering. Thus we may conceive, without much difficulty, how he might have any number of lines of figures upon his table at the same time, in a defending order, or how he might deduce one number from another, or how he might make any computation required. It is said that he could place and displace his pins with incredible quickness and facility, to the surprise and amusement of spectators. He could even break off in the middle of a calculation, resume it when he pleased, and instantly know the state of it, by only drawing his fingers gently over the table. The table might also be previously prepared by himself or some other person, by filling every third hole of every third parallel line with large pins or cyphers; and then, when he intended to calculate, he would only need to complete every figure by adding a small pin in its proper place, except when he wished to express an unit, in which case he must have changed the large pin into a small one. He had contrived and preferred for his own use certain arithmetical tables, which seemed to have some relation to the tables of natural sines, tangents, and secants. These were four pieces of solid wood, in the form of rectangular parallelopipeds, each about 11 inches long, 3\(\frac{1}{2}\) broad, and somewhat above half an inch thick. The two opposite faces of every one were divided into little squares after the manner of the abacus above described; but they were perfectly fixed in all the necessary points, where the pins were stuck fast to the board. Each face exhibited nine small arithmetical tables, of ten numbers each; and every number, generally speaking, consisted of five or six figures. One of these tables is represented in Plate I. Algebra, fig. 2.

Besides this arithmetical use of his table, for which it was primarily and chiefly designed, he could describe upon it very neat and perfect geometrical figures, consisting of right lines, intersecting one another in a variety of ways. This he did by two methods; either by pins set in rows, which exhibited the appearance of pricked lines, or by pins placed only at the intersections. Then by winding a piece of fine thread or silk about their heads, he could very well exhibit any continued straight lines at pleasure, or any figure of such lines. Whether he had palpable letters also, somewhat like printing types, to distinguish the several angular points, and to afford in demonstrating the properties of these figures, does not now appear. It is not very difficult to conceive, how the same table might possibly be applied to the representation of all kinds of algebraical equations, and to the several reductions of such equations, especially by the use of the mentioned types, or some familiar contrivance. Dr. Saunderfon also might have had types, in the form of pins, for the common algebraic signs, and to serve the purpose of various operations; and thus his table would have had a near resemblance to a printer's form, which he might have read by the touch, if he had thought proper to use it. It is said that he could spell very well, that he knew the shapes of the letters, both small and capital, and would sometimes amuse himself, when opportunity offered, by reading the inscriptions upon tombstones with his fingers; and he is known to have often regretted, that he did not apply himself to learn to write in his younger years, which he thought he could easily have accomplished. Saunderfon's Alg. vol. 1. Intro.

The description of an apparatus for the improvement of this numerical board of Dr. Saunderfon, was prefixed to the Society of Arts, &c. in 1786, by a blind person of the name of Thomas Grenville. The board is perforated with holes, in exact lines, horizontally and perpendicularly. The horizontal lines denote units, tens, hundreds, thousands, &c. reckoning from right to left, as usual; and the perpendicular lines allow the figures to be placed below each other, as is usual in every account. These holes are fitted with pegs, on the heads of which are painted the figures (or numbers) they respectively represent; which figures are distinguished by the blind person by means of certain pins placed in the heads of these pegs. Between the rows of holes for these
thee pegs are rows of smaller holes, adapted to receive the
borders of flush wires, which perform the part of lines,
placed either horizontally or perpendicularly, as is necessary
for any arithmetical operation. The box is formed into
proper divisions for holding the pegs and wires: and it is,
without doubt, a very useful apparatus for blind persons,
who, with a little attention, may perform by means of it
every arithmetical operation which they could perform if
they had the use of sight.

Arithmetic, political, is the application of arithmetic to
political subjects, such as the strength and revenues of king-
goods, the number of inhabitants, births, burials, &c. See
Political Arithmetic. To this head may be also referred
the doctrine of Chances, Gaming, &c.

Arithmetic of Ratio. See Ratio.

Arithmetic, Sexagesimal, or sexagenary, is that which
proceeds by sixties: or the doctrine of sexagesimal fractions;
supposed to have been invented by Polonius, in the second
century. In this notation the integral numbers from 1 to
59 were expressed in the common way; then sixty was
called a sexagesima prima, and marked 1V; twice sixty, or 125,
1V2; and so on to 59 times 60, or 3540, which is LIX.
Sixty times sixty, or 3600, was called a sexagesima secunda,
and marked with two ciphers, 1; twice 3600, 1V2; and ten
times 3600, X3V, &c. And in this way the notation was
continued. But if a number like 63 was joined with any
of the sexagesimal integers, their proper expression was
annexed without the prefix; eg. 4. gr. 60 and 23 is IVXXV,
the sum of twice 65, ten times 3600, and 15; X1IVV, &c. So
nearly did the inventor of this method approach to the
Arabic notation: instead of sexagesimal progression, he had only to substitute decimals to make the
figures of numbers from 1 to 9 simple characters, and to
introduce a character which signifies nothing by itself serving
only to fill up places. The sexagesima integralia were thus
laid aside, after the introduction of the Arabic notation;
but the sexagesimal fractions continued till the invention of
decimals; and are still used in the subdivisions of circular
areas and angles.

Sam. Reysier has invented a kind of sexagenal rod, in
imitation of Napier's bones, by means whereof the sexa-
genary arithmetic is easily performed.

Arithmetic, specious, is that which gives the calculi of
quantities; using letters of the alphabet instead of figures,
to denote the quantities; and coincides with what we usually
call algebra, or literal arithmetic.

Dr. Wallis has joined the numeral with the literal calculi;
and by means of it demonstrated the rules for fractions,
proportions, extraction of roots, &c. a compendium of which
is given by Dr. Wells, under the title of Elementa Arith-
metica, in 1698.

Arithmetic, tabular, is that in which the operations of
multiplication, division, &c. are performed by tables cal-
culated for that purpose; such as those of Herwart ab
Hohenburg, called "the universal table of prolatephereses,"
published in 1610; and Hutton's tables of powers and pro-
ducts, published by order of the commissioners of longitude,
in 1781.

Arithmetic, tertitale, is that in which only the figures
1, 2, 3, and 0, are used. We have a treatise of this arith-
metic, by Erhard Weigel; but both this and binary arith-
metic, are little better than curiosities, especially with regard
to practice; inasmuch as the numbers may be much more
compendiously expressed by decimal arithmetic, or the com-
mon decuple scale, than by either of them.

Arithmetic, vulgar, is that conversant about integers and
vulgar fractions.

Arithmetic, universal, the name given by Sir Isaac
Newton to the science of algebra. See Algebra.

Arithmetical, denotes something relating to, or
performed after the manner of, arithmetic.

Arithmetical complement of a logarithm, is what the
logarithm wants of 10000000. Thus the arithmetical
complement of 71679543 is 1, 99543, and it is found by
subtracting each figure but the half from 10, and that from 10.
It is often used in trigonometrical calculations, when
radius or 10000000 is the first term, to save the labour of
subtraction. It is distinguished by placing a point before,
and another after the index; thus, 2, 8992496.

Arithmetical division of the octave, in Muses, is that which

<table>
<thead>
<tr>
<th>A</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonic</td>
<td>a h e d e</td>
</tr>
<tr>
<td>Division</td>
<td>ABCDEG</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>DEFAC</td>
</tr>
<tr>
<td>Plagal</td>
<td>BCD</td>
</tr>
</tbody>
</table>

The first of these divisions consists of fifths and fourths;
the second of fourths and fifths.

These divisions still exist in Canons, or plain chant;
though they have been long abandoned in musical music. It
is necessary, however, to know them, as they still serve to
regulate the answer to figures. See Division in Muses,
Figure, and Mode.

Arithmetical instruments, or machines. See Instrumental
Arithmetic.

Arithmetical medium or mean. See Medium.

Arithmetical progression. See Progression.

Arithmetical proportion. See Proportion.

Arithmetical ratio. See Ratio.

Arithmetical scales, a name given by M. Buffon, in
the Mem. d'Acad. of 1741, to different progressions of
numbers adapted to arithmetical computations. Besides
the common decuple scale, consisting of ten numbers, others
have been devised, such as the binary, tetradecal, &c. con-
sisting of a different number of characters. M. Buffon lays
down a concise and simple method, which serves to fly at
once how to write down any given number in any scale
whatever; and he also makes several observations on the
different scales that have been proposed. It is evident that
any scale of numbers, containing fewer or more than ten,
would have both its advantages and inconveniences. In a
scale of fewer and lower numbers, a given number would
require more places of figures for denoting or expressing it;
but multiplication and division would be more easily
performed, as it is more easy to use the smaller numbers 2, 3, 4;
and the larger ones 7, 8, 9; but in a scale ascending be-
yond 10, or containing 10 or 10 characters, any given
number might be expressed by fewer of them, and yet the
arithmetical calculations would be more difficult, on account
of the larger numbers 11, 12, 13, &c. Hence it may be
concluded, upon the whole, that the decuple scale is a con-
venient medium between the two extremes, as the numbers
which it comprehends, are neither too small nor too large.
The duodecimal scale, comprehending 12 characters, would
express all numbers in a more compendious manner than

the
the decimal scale; and yet no single character would represent a number too large for ordinary computations. Accordingly the multiplicative table is now made to extend to 12 numbers instead of 10, and the mode of multiplying and dividing by 11 and 12, is as easily acquired as that by 8, 9, or 10. Besides, the number 12 has this advantage; that it admits of more submultiples than 10, and therefore there would be fewer expressions of interminable fractions in this scale than in the decimal one; and hence it has been suggested that the duodecimal scale would be preferable to any other.

Arithmetical Triangle. See Triangle.

Arithmomania, compounded of arithmetic, number, and mania, distinction, a kind of divination, or method of foretelling future events by means of numbers. Didrio distinguishes two sorts of it; one used by the Greeks, who from the number and value of the letters contained in the names, e.g. of two combatants, inferred, that the person whose name consisted of those that were most numerous and of greatest value, would be victorious; and thus they concluded, it is said, that Hector should have been vanquished by Achilles; the other was that of the Chaldeans, who divided their alphabet into three decades, and changing into numeral letters the letters of the names of those who confuted them, they referred each name to some planet, and in this manner formed their prefaces. The Platouilians and Pythagoreans were addicted to the Arithmomania. The gematria, which makes the first species of the Jewish Cabbala, is a foot of Arithmomania. See Ge-matria, and Cabbala.

Arizium, in Ancient Geography, a town of Spain, in Lusitania, situate upon the Tagus, north-east of Ohigo.

Aritzar, in Geography, a town of European Turkey, in the province of Bulgaria, ten miles south of Viddin.

Arivates, in Ancient Geography, a people placed by Pliny in Pannonia.

Arius, in Biography, founder of the sect called Arians, in the beginning of the fourth century, was, according to Epiphanius, a native of Libya; but, according to Photius, of Alexandria. In early life he was probably of the school of Lucian, bishop of Antioch, who favoured the opinions of Paul of Samosata; for Arius, in a letter to Eusebius of Nicomedia, calls him a Collucianist; whence Cave and others have inferred that they were fellow disciples of Lucian. He was appointed deacon by Peter, bishop of Alexandria, and afterwards excommunicated, because he disapproved of the bishop's treatment of Melitian and his adherents. After the martyrdom of Peter, he was re-admitted by Achilles; the next bishop, to the office of deacon, and also ordained presbyter. At this time he was much approved by Alexander, the successor of Achilles, and he was not only presbyter, but excommunicated in one of the churches of Alexandria. About the year 315, the contile commenced between Arius and Alexander, of which as to its rise, progress, and consequences, an account is given under the article Arians. In the year 322, he was excommunicated from the church, and expelled the city by a council convened by Alexander, upon which he withdrew into Palestine, where he formed a strong party of persons who favoured him and his cause. Whith he complained in a letter to Eusebius of Nicomedia, of the persecution he suffered for the sake of the truth, he derived encouragement from the number and rank of those who were attached to his opinions and interests; among whom were several presbyters and bishops. The breach between him and Alexander was thus gradually widened, and parties were formed, who became inveterate and invincible in their opposition to each other. This mutual altercation proceeded to such an extreme, that it furnished a subject of satirical exhibition in the public theatres. The emperor Constantine, in this flag of the dispute, interposed with the best intention to produce mutual reconciliation. But his efforts, as a mediator, were altogether ineffectual; and he himself was at length induced, by the interference of Antin and begotten ecclesiastics, probably against his judgment and不得已, to take an authoritative and active part, with a view of terminating a controversy which had filled the milder methods of pernicious and retributive. For this purpose, he imprudently convened the council of Nice, in order to decide whether the Logos, or only begotten Son, was of the same substance with the Father; and thus, instead of terminating, he perpetuated the divisions of the church, and divided the whole Christian world into "Homousians" and "Homoeans." This council having decided that Christ is consubstantial with the Father, the doctrine of Arius was of course condemned, and the presbyter himself, who was then at Nice, ensuing its determination, was banished by Constantine into a remote province of Illyricum. By an edict of the same emperor, he and his adherents were disqualified with the opprobrious name of Porphyrians, his books were ordered to be burnt, and those who concealed any of them were to be put to death. In a little while, the emperor, who seems to have naturally poissied a candid and benevolent mind, relented, and his conduct towards Arius underwent a total change. Eusebius of Nicomedia, it is said, by means of a presbyter who enjoyed the confidence of Constantine, the emperor, who gained over that lady to the favor of the former, recommended to the emperor this presbyter, by whom he was persuaded to believe, that the faith and conduct of Arius had been misrepresented by his enemies. Upon this Constantine recalled him from banishment; and having received a satisfactory confession of faith, in which he professed his belief, that "the Son was begotten of the Father before all ages," but without any acknowledgment of consubstantiality, recommended to the bishops assembled in council at Jerusalem, A. D. 355, to re-admit him into the communion of the church. The bishops, who are supposed to have been convened Arians, readily complied, and recommended Arius to a cordial reception among other churches. Attempts were made for restoring him to the church of Alexandria, but they were ineffectual, on account of the refusals of Athanasius, who had succeeded Alexander in that see. A day was appointed, by the express command of the emperor, for his reception into the church; at Constantinople's order, on that very day, A. D. 339. It is said, Arius walking in the city, and retiring to obey a sudden call of nature, he discharged his entrails and died on the spot. The glory of his death is related both by the historian Socrates (i. i. c. 25. ii. 38. Ep. ad Serap.) and Athanasius, but with circumstances which very much invalidate its credibility. The learned editor of Mosheim admits the testimonies of Socrates, Sozomen, Athanasius, and others, with respect to the manner of his death, as unexceptionable. The causes of it, however, have involved much matter of dispute. The ancient writers, who considered this event as a judgment of heaven, maliciously procured by the prayers of some, to punish the impiety of Arius, will find little credit in our times, among such as have studied with attention and impartiality the history of Arius. "After having considered this matter with the utmost care," says the writer above mentioned, "it appears to be extremely probable, that this unhappy man was a victim to the resentment of his enemies, and was destroyed by poison, or some such violent method." He adds; "a blind and fanatical zeal for certain items of faith has, in all ages, produced such horrible acts of cruelty and injustice."
The talents and learning of Aratus have been generally admitted; but his delight in allegory and character have been more widely represented by writers of different parties. To this purport we shall take an extract from the account given of him by the echo and impartial Hesiod and on the other hand, "Aratus was very tall, grave and serious, yet affable and courteous. With good natural parts, and no mean facility of figure, peculiar learning of all sorts, he was particularly distinguished by his skill in logic, or the art of disputing. He had at least the outward appearance of piety. In short, he is represented as a man exceedingly well qualified to form a party, and carry on any enterprise he should undertake. So far as I recollect, his conduct was unblemished, excepting what relates to his zeal for maintaining his disputed errors, and that he is charged with detraction of his real enemies upon some occasions, in those difficult circumstances to which he was reduced by the prevailing power of his adversaries."

"I may add here," continues the same author, "that he was much the most spiritual and a full assurance of the truth of his opinions; particularly in his letter to Eschines of Nicomedea, where he базes orthodox, and he tells that truly, that he and his friends were unjustly perjured by Alcimus, as the truth's sake, which conveys all things; that all the bishops of the East in general had been anathematized by Alexander, except Ptolemaeus, Helianus, and Macrius, whom he calls ignorant heretics. As for himself, he was not able to entice their impious doctrine; nor would he ever receive it, though he were to suffer a thousand deaths from those heretics."

One of his biographers says (Gez., B. 58), that "for aught that appears upon the face of his glory, it may be confidently affirmed, that his morals were untainted, and his piety sincere. The incidents of his life afford a strong presumption, that he possessed a genuine love of truth, and adhered to what he judged to be its cause with firm integrity. Had his party prevailed during his life, there can be no doubt, that after his death his name would also have been recorded among the saints; having had the misfortune to be registered by the church which called itself orthodox, among heretics, he can only be found by porcellus in the humblest lot of honest men."

The works of Aratus do not appear to have been voluminous; though, it is probable, that he wrote many letters. We have still extant his epistle to Eschines of Nicomedea, (Ap. Epig. H. 69;) and another to Alexander, bishop of Alexandria (Theod. l. i. c. 57, 8.) He also wrote several little poems, fitted for the use of common people, with a view of promoting his peculiar opinions. A book called "Thalia," but whether it was written in prose or verse, or partly in the one form and partly in the other, is not certain, is mentioned by Socrates (H. E. l. i. c. 9.) and Sosamen (H. E. l. i. c. 21.) and confirmed as wanton and dilatory. It was condemned, as they say, by the council of Nice. Athenaeus (De Sent. Dom. u. v. p. 247.) quotes its several times, and is supposed to have read it; he speaks of its effeminacy and boibonery. It must be owned, however, that this is the testimony of enemies, and that other writers probably took their character of it from Athenaeus. Thelusmenus also mentions, that Aratus also published some works against the heathens in defence of the Christian religion. Soc. Hist. l. i. Sosamen l. i. Cave. Hist. Lit. vol. l. p. 172. Lardner's Works, vol. iv. p. 106-110. Mulheim's Ecl. Hist. vol. i. p. 412-418 Gen. Dist. Gibbon's Hist. vol. iv. p. 228-234.

ARJUANX, in Geography, a town of France, in the department of Landes, and chief place of a canton in the district of Mont-de-Marsan, eleven miles north of Tarbes. The place contains 359, and the canton 725 inhabitants; the territory includes 402. kilometers and 15 c. minutes.

ARIZA, a town of Spain, in Aragon, seated on the Xalon, eight leagues above Calatayud.

ARK, or Arcus in Geometry, Astronomy, &c. See ARCM.

ARK, Arcus, in the Scripture Language, denotes a kind of floating vessel built by Noah, for the preservation of several species of animals from the deluge.

The Hebrew word, by which the ark is expressed, is הַמְנָאִית (hamannayit), or הַמְנַאָה (hamanah), the constructive form of הַמְנָא (hamane), which is evidently the Greek δίκα (dikai), and to the LXX renders the word in θυσίαν, τός, where only it occurs. There they render it xòma. Josephus θερινον, and the Vulgate version, signifying an ark, collar, or chief. Although the ark of Noah answered, in some respects, the purpose of a ship, it is not so certain that it was of the same form; for it was inconclusively argued by Michaelis and some others, that if its form had not been like that of a ship, it could not have resisted the force of the waves; because it was not intended to be conducted, like a ship, from one place to another, but merely to float on the surface of the water." Gen. vii. 17. It appears to have had neither helm, nor sail, nor oars; but was merely a bulky capacious vessel, light enough to be raised aloft with all its contents, by the gradual rise of the deluge. Its shape therefore, was of little importance; more especially as it seems to have been the purpose of providence, in this whole transaction, to signify to those who were saved, as well as to their latest posterity, that their preservation was not in any degree effected by human means. The ark in which Moses was exposed, was a vessel of the same nature, and bears the same name; and some have thought that both were of the same materials. With respect to the etymology of the Hebrew word, the most rational seems to be that of Codius, who derives it from the Arabic word 2717, kollet, from which is formed 2717, or 2717, denoting a place in which things are collected. Forth (De D. l. i. c. 31, Antiquorum,) defines it from two Egyptian words, thot, a ship, and haj, a palm-branch tree; and such ships are still to be seen not only in Egypt, but in India and other countries; particularly in some isles of the Pacific ocean.

The ark has afforded to the critics and naturalists several points of curious inquiry relating to its form, capacity, materials, time of building, place of resting after the flood, &c.

Noah is computed to have been one hundred years in building the ark, viz. from the year of the world 1552, to the flood, which happened in the year 1550; at least this is the common opinion of the fathers, oriental authors, and other learned persons; and to this purpose they allege, that Noah is said to be five hundred years old before any mention is made of the ark. Origen, lib. iv. contra Cels. St. Aulinn, de Civit. Deli. lib. xv. c. 27. and contra Fustum, lib. xi. c. 18. and in his Quod. 5 and 23. On Gen. Rupert, lib. iv. in Gen. xx. affect as much; and are followed by Solan, Turnel, Spondus, Plessier, &c.

Yet Berosus affirms, that Noah only began to build the ark seventy-eight years after the flood. On the other hand, will have it to have been an hundred and twenty years in building. Tschuana fifty-two, and the Mahometans only two years. See the texts, Gen. vi. &c.

Several interpreters of the sacred writings infer from the words of St Peter (1 Ep. iii. 20., "thealogos suffering of God waited in the days of Noah, while the ark was preparing," that Noah was employed in building the ark during the whole time of forebearsance, which was 120 years: but others think the time much shorter, because Noah's three sons, the chief of whom was born in his 50th year, are not only mentioned before the directions given for the ark, but they and their wives are ordered, in those directions to be taken into the ark; a circumstance which
ARK.

which seems to imply that they were then married. Some, in order to evade this difficulty, have said that when Noah is declared (Gen. vi. 32.) to have begotten Shem, Ham, and Japheth, at the age of 500 years, it should be translated, "he had begotten," instead of "he begat." F. Fournier, in his Hydrography, adopts the opinion of the fathers; noting that the hands employed in it were only Noah and his three sons. To this purpose he alleges the instance of Archias of Corinth, who, with the help of three hundred workmen, built Hiero's great ship in one year. Add, that Noah's eldest son was not born till about the time when the ark was begun, and the younger after: so that it was a long time before they could do their father any service. Upon the whole it may be observed that there is no such connection or exact order of time in the whole narration as to establish any of these conjectures. But it is certain, that so large a building, and the previous preparations, could not have been the work of a few years.

The wood whereof the ark was built, is called in scripture "gopher wood," and in the LXX. οἶνος γαβριαίς, "gopher wood," and in the Vulgate, "pinus pinifera," "gopher wood." Onkelos and Jonathan render gopher by דִּבָּר, "eker, cedar." St. Jerome, in the Vulgate, by ligia levigata, plane wood; and elsewhere, ligia bituminata, q.d. pitched wood, which is adopted by Delgado, a learned London Jew. Kimchi translates it "wood most proper to float." Vatable, "light wood," which swins in the water without corrupting; Junius Tremellius, and Buxtorf, a kind of "cedar," by the Greeks called κητβαξι; Avenarius and Munster, "pine." Fuller and Bochart, "cypræs," and the "ebyon-tree;" others, "fir;" Caftalio, "turpentine," &c. Pelletier prefers the opinion of those who hold the ark made of cedar: his reasons are, the incorruptibility of that wood; the great plenty thereof in Asia, whence Herodotus and Theophrastus relate, that the kings of Egypt and Syria built whole fleets of it in lieu of deal; and the common tradition throughout the East imports, that the ark is preferred entire to this day on mount Arafa. The Mahometans explain it by the word "Sag," or the Indian plane-tree. To these various conjectures may be added that of Dr. Geddes (Crit. Rem. vol. i. p. 67.), who apprehends, that the Syriac translator has given the true meaning in the word נְבָר, rendered in the polyglot by the Latin word vinum, signifying in general a twig, rod, or wicker of any kind. In Arabic the same word signifies a cheffet, coffer, or basket made of twigs, particularly of palm-tree leaves. And, indeed, all the first vessels of capacity, whether coffer, ark, or ship, seem to have been composed of the same materials. The ship or ark of Noah, says this writer, was a large coffer formed of twigs, like balfet work, and covered over with bitumen, both within and without, to keep out the water. Whether those twigs were of such, or palm-tree, or hazel, or poplar, or birch, or juniper, or any other kind of vinnamonous wood, he does not presume absolutely to determine; but he thinks it must have been the oifer, which, as we learn from Columella, was considered as the principal of the wicker kind. It is certain, that boats, balfets, and ships, were originally made of such twigs, and particularly of oifer; and even those, which were externally covered with skins, had other ribs at the base of that wood, on account of its pliability. See Herodotus (Clio); or Niebuhr's Arabia, vol. ii. p. 175.

The figure of the ark was that of an oblong square, or parallelepiped, with a flat bottom, and it was gradually contracted at the top, in the form of a floping roof; and this roof rofe in the middle a whole cubit higher than its extremities. This slope was sufficient, when covered with bitumen, to let the water pass easily off the deck. This vessel was, without doubt, so contrived as to admit air and light, though the particular conformation of the air-vents or windows be not mentioned. Bryant (Anal. Anc. Myth. vol. ii. p. 195.) supposes, that it was so closed up and fastened, that the persons within it were confined to darkness; having no light but what they received from lamps and torches. They could not therefore have been witnesses to the general calamity of mankind; nor see the mighty eruption of the waters, nor the turbulence of the seas. Some, with this writer, have supposed that they had one window above a cubit in diameter; but others have thought that the term יִיבָר refers to the floping roof, and that the windows are not particularly mentioned.

The ark, whatever were the materials of which it consisted, was pitched over, or coated with bitumen, such as some have supposed to be used in building the tower of Babel; and it has been observed, that the bitumen judaicum, or aphthalus, was the most proper of all substances for this purpose. At first, it was foil, vitious, and plaible, and might be thrust into every chasm and crevice with the greatest ease; but it would soon acquire a tenacity and hardness superior to those of our pitch. A coat of it spread over both the inside and outside of an ark, even of wicker work, would render it perfectly water-proof and impregnable: and the longer it was kept in the water, the harder and stronger it would grow. The Arabs still use it in covering their vessels; and mixed with a tenth part of common pitch, it is called "philaphalus," and has been employed to the same purpose in our days by M. de la Sabloniere at L'Orient. Beroysus says, that the people of Armenia, where it was supposed that the ark refled, scraped off the aphthalus, and used it as a charm; and Abüdenus informs us, that small pieces of the wood were carried about by way of amulet.

As to the place where the ark was built, there have been different opinions; some have supposed that it was built in Palestine, and that Noah planted the cedars, of which it is said to be made, on the plains of Sodom; others imagine that it was built on mount Caucasus, on the confines of India; and others refer it to China, where Noah was supposed to have lived before the flood; but it was probably constructed not far from mount Ararat, where it rested, as it was not of a form which would allow of its being driven to a great distance. It is therefore most reasonable to imagine, that it was built in Chaldæa, in the territories of Babylon, where, it is said, there was so great a quantity of cypress in the groves and gardens in the time of Alexander, that he constructed a whole fleet of it for want of other timber; and this conjecture is confirmed by the Chaldæan tradition which makes Xifithrus, the Noah of Beroysus, fail from that country.

The dimensions of the ark, as delivered by Moses, are three hundred cubits in length, fifty in breadth, and thirty in height; which, compared with the great number of things it was to contain, seem to many to have been too scanty: and hence an argument has been drawn against the authority of the relation. Apelles, one of Marcion's disciples, objected to it, and Celsus ridiculed it, calling it "sublumination, the absurd ark." To solve this difficulty, many, both of the ancient fathers and later critics, have been very much perplexed. Origen, St. Augustine, and others maintain, that by the cubit here spoken of, we are to understand the Egyptian geometrical cubit, equal, according to them, to six vulgar cubits, or nine feet. But the truth is, it does not appear there ever was any such measure as a geometrical cubit either among Egyptians or Jews.—Others, as Sir W. Raleigh, account for it by assuming the stature of mankin'
mankind in the first ages to have been much greater than in our days; and consequently the cubit, which is taken for a part of the human body, proportionally larger. But this does not avail, since the same reason will infer an equal augmentation of the size of other animals. Others suppose the facred cubit to have been here spoken of, which was a hand's breadth longer than the civil one; but this only affords a small supply; besides, the facred cubit does not appear to have been ever used, except in facred edifices, as the temple and tabernacle.

This difficulty is much better solved by Butero and Kircher, who, supposing the common cubit a foot and a half, prove geometrically that the ark was abundantly sufficient for all the animals supposed to be lodged therein. The capacity of the ark will be doubled, if we admit with Cumberland, &c. that the Jewish cubit was 21.88 inches. According to this measure, it must have been 54.72 English feet long, 91.12 broad, and 54.72 high; and its solid contents 2,730,811,9008 feet. Smeulius computs the ark to have been about half an acre in area. Cuneus and others have also calculated the capacity of the ark.—Dr. Arbuthnot computes it to have been 81,062 tons. Father Lamy says, that it was an hundred and ten feet longer than the church of St. Mary at Paris, and sixty-four feet narrower; to which his English translator adds, that it must have been longer than St. Paul's church in London, from west to ealt, broader than that church is high in the infide, and about sixty-four feet in height, of our measure.

The things contained in the ark were, beside eight persons of Noah's family, one pair of every species of unclean animals, and even pair of every species of clean animals, with provisions for them all, during the whole year.—The former appears, at first view almost infinite; but if we come to a calculation, the number of species of animals will be found much smaller than is generally imagined; out of which, in this case, are to be exempted fuch animals as can live in the water; and bishop Wilkins imagines, that only seventy-two of the quadruped kind needed a place in the ark. Mr. Kirwan (Irish Trans. vol. vi. p. 291.) with a view of solving the objection arifing from the difficulty of collecting or finding all the various species of animals now known, some of which can only exit in the hottest, and others only in the coldest climates, apprehends that no others were collected in the ark besides those that were most 'necifary for the use of man, and those only of the granivorous or granivorous classes. At this early period, ravenous animals were not only unnecessary, but would have been even deftructive to those which had just obtained existence, and probably not in great numbers: they only became necifary, when the granivorous had multiplied to such a degree that their carcaces would have fupplied fufficient food to the human inhabitants of the ark. Hence it appears, they should have been of posterior creation: and thus he also accounts for the existence of those that are peculiar to America and the torrid and frigid zones. Such is the singular hypothesis of this ingenious naturalist.

The ark appears to have been divided into three fories; and it is agreed on, as most probable, that the lowest flory was defigned for the beasts, the middle for the food, and the upper for the birds, with Noah and his family; each flory being subdivided into different apartments, flats, &c. Though Josephus, Philo, and other commentators add a kind of fourth flory under all the rest; being, as it were, the hold of the vefcl, to contain the ballast, and receive the felony and feces of fo many animals.

Drexelius makes three hundred apartments; father Fournier, three hundred and thirty-three; the anonymous authur of the Questions on Genesis, four hundred; Butero, Temporarius, Arien Montanus, Wilkins, Lamy, and others, suppose as many partitions as there were different fpecies of animals. —Pelletier only makes seventy-two, viz. thirty-four for the birds, and as many for the beafts: his reafon is, that if we suppose a greater number, as three hundred and thirty-three, or four hundred, each of the eight persons in the ark must have had thirty-four, forty-one, or fifty flats to attend and cleanse daily, which he thinks impossible. But there is not much in this; to diminish the number of flats, without a diminution of the animals, is vain; it being perhaps more difficult to take care of three hundred animals in seventy-two flats, than in three hundred. Butero computes, that all the animals contained in the ark could not be equal to five hundred horses; he even reduces the whole to fifty-four pairs of oxen. Father Lamy enlarges it to sixty-four pairs, or an hundred and twenty-eight oxen; so that supposing one ox equal to two horse, if the ark had room for two hundred and fifty-four horses, there must have been room for all the animals. And the fame authors demonstrate, that one floor of it would suffice for five hundred horses, allowing nine square feet to a horse.

As to the food on the second flory, it is obferved by Butero, from Columella, that thirty or forty pounds of hay ordinarily fuffices an ox for a day: and that a solid cubit of hay, as usually prefixed down in our hay-racks, weighs about forty pounds; fo that a square cubit of hay is more than enough for one ox one day. Now it appears that the second flory contained 150,000 solid cubits; which, divided between two hundred and fix oxen, will afford each more hay by two-thirds than he can eat in a year.

Bishop Wilkins computes all the carnivorous animals equivalent, as to the bulk of their bodies, and their food, to twenty-seven wolves; and all the reft to two hundred and eighty beeves. For the former he allows the fufficiency of 1875 fheep, and for the latter 109,500 cubits of hay: all which will be easily contained in the two firft flories, and much room to spare. As to the third flor, no body doubts its being fufficient for the fowls, with Noah and his fons and daughter.

Upon the whole, the learned bishop remarks, that of the two, it appears more difficult to affign a number and bulk of necifary things to answer the capacity of the ark, than to find fufficient room for the feveral fpecies of animals already known to have been there. —This he attributes to the imperfection of our lifts of animals, especially those of the unknown parts of the earth; adding, that the most expert mathematician at this day could not affign the proportions of a vehicle better accommodated to the purpose than is here done; and hence finally concludes, that the capacity of the ark, which had been made an objection against fcripture, ought to be efcounted a confirmation of its divine authority; fince, in those rude ages, men being lefs verfed in arts and philofophy, were more obnoxious to vulgar prejudices than now; fo that had it been a human invention, it would have been controvirted according to those wild apprehenfions which arise from a confused and general view of things, as much too big, as it has been represented too little. If we suppose that many animals would probably become torpid during the cold of the deluge, or consume little food whilst they were confined in a flate of darknefs, the means of fufficiency laid up in store for them would be thus diminished. Besides, it would be sufficient to preferve the eggs of thofe animals that are oviparous; and many of them would be lodged in the earth with the feeds of plants, kernels of fruits, &c.; and thus the labour attending such as were preferved in the ark would be leffened; and room would be obtained for difposing a variety
A R K.

variety of instruments and utensils which would be wasted immediately or soon after the deluge had subsided. So that, all circumstances considered, the capacity of the ark might be found fully adequate to all the purposes of its construction, and for preserving an ample supply of every thing that would be necessary for raising a new flock of animals and vegetables, after the deluge had subsided.

Those who have objected to the Mosiac history of the deluge, ought candidly to consider the several particulars that have been above stated; and they ought also to recollect, that the several varieties and species of both plants and brute animals, which differ from each other by small degrees, seem to be multiplied every day by the vicissitudes of climates, culture, food, mixture, &c. On the supposition of an universal deluge, which is confirmed by the general history of the world, and by a variety of existing facts and monuments, such a structure as the ark, for the preservation and multiplication of various animals, seems to have been absolutely necessary; for as we can trace up the first imperfect rudiments of the art of shipping amongst the Greeks, there could be no shipping before the flood; and, consequently, no animals could have been saved. Nay, it is highly improbable that even men and domestic animals could have been saved, not to mention wild beasts, serpents, &c. through we should suppose, that the antediluvians had shipping, unless we suppose also, that they had a divine intimation and direction about it, such as Moses relates; but this would be to give up the cause of infidelity.

Hartley's Obi. on Man, p. 372. Dr. Bryant (Anal. Anc. Myth, vol. ii. p. 213, &c.) has collected a variety of ancient historical relations, which shew that fome records concerning the ark had been preserved among most nations of the world, and the general fystem of Gentile mythology. Abydenus, with whom all the earlier writers concur, informs us that the place of descent from the ark was Armenia; and that its remains had been preserved for a long time. Plutarch (De Solert. Anim. Oper. vol. ii. p. 508,) mentions the Noachic dove, and its being sent out of the ark. Lucian (De Dea Syria, vol. ii. p. 882,) speaks of Deucalion's going forth from the ark, and raising an altar to God. The priests of Ammonia had a cultus, at particular seasons, of carrying in procession a boat, in which was an oracular shrine, held in great veneration: and this cultus of carrying the deity in an ark or boat, was in use also among the Egyptians. Bishop Pococke has preserved three specimens of ancient sculpture, in which this ceremony is displayed. They were very ancient, and found by him in Upper Egypt. Vid. Diod. Sicul. l. xvii. p. 528. Pococke's Works, vol. i. p. 252. The ship of his referred to the Ark, and its name "Baris," was that of the mountain corresponding to Ararat in Armenia. Bryant finds refer to the ark in the temples of the serpent-worship, called "Dracoth," and also in that of Selusiris, founded after the model of the ark, in commemoration of which it was built, and consecrated to Obris at Theba; and he conjectures, that the city, said to be one of the most ancient in Egypt, as well as the province, was denominated from it. Theba being the appellation of the ark. In other countries, as well as in Egypt, an ark, or ship, was introduced in their mysteries, and often carried about in the feasons of their festivities. He finds also in the story of the Argonauts several particulars, that are thought to refer to the ark of Noah. As many cities, not in Egypt only and Boeotia, but in Cilicia, Ionia, Athens, Pheonicia, Carthage, Syria, and Italy, were called Theba; so likewise the city Apanema was denominated Ciboton, from ἡ κύρος, in memory of the ark, and of the history connected with it. The ark, according to the traditions of the Gentile world, was prophetic; and was regarded as a kind of temple, or refeence of the deity. It comprehended all mankind, within the circle of eight persons, who were thought to be so highly favoured of heaven, that they at first were reputed to be deities. Hence in the ancient mythology of Egypt, there were precisely eight gods (Diod. Sic. i. i. p. 12.), and the ark was esteemed an emblem of the system of the heavens. The constellation Aquarius, in particular, and the great effusion of that element, as it is depicted in the sphere, undoubtedly related to this history. The principal terms by which the ancients distinguished the ark, were Theba, Baris, Argus, Aien, Aren, Arni, Laris, Bouta, Bocotus, and Cibotus; and out of these they formed different periphanies. As the sky in the ark was an intermediate state between a loft world and a world renewed, this was alluded to in the hieroglyphical representations of the Gentile writers. See Janus, Prometheus, and Saturn. As the ark was represented under the figure of a ship, basted αὐτον ἀγγειον, i.e. whose extremities were alike, which formed a kind of crecent, the new moon, appearing in this shape, was made a type of the ark. Hence, in the mythology of the ark, and the Jônah or dove, there is continually some reference to the moon; and hence the moon was esteemed by the Egyptians the mother of all beings, for the moon and the ark were synonymous terms.

ARK.

Ark of the Covenant, or of the Testimony, in Scripture, denotes a kind of chest made of shittim wood, overlaid with gold and without with pure gold, 2 ¹/₂ cubits long, 1 ½ broad, and 1 ½ deep, in which, by God's command, Exod. xxv. 16. were kept the two tables of stone, on which God had engraven the ten commandments, given to Moses on the mount, and held in high veneration among the Hebrews. It contained likewise the golden pot that had manna, and Aaron's rod, and the tables of the covenant. Hebr. ix. 4.

The ark was reposed in the holiest part of the tabernacle. — It was taken by the Philistines, and detained twenty, some say forty years, at Kirjath-Jearim; but the people being afflicted with epidemic disease, on account of it, returned it with divers presents. It was afterwards placed in the temple. See Plate 1. Miscellany.

The lid or covering of the ark was called the propitiatory, or mercy seat; over which were two figures placed, called Cherubim, with expanded wings of a peculiar form. This covering was made of pure gold, of equal length and breadth with the ark, and kept flady by a crown or coronet of gold, which also served as an ornament. The covering was called הָעֵפָן, a word which may be derived from covering or from exspiring, as in the language of scripture, when sins are forgiven, they are said to be covered. The septuagint have joined both forms together in their translation, εἰρήκον ἑκάστου. Over this covering, and between the wings of the cherubim, was the place, where the Schecinah reeled, both in the tabernacle and temple, in a visible cloud; hence it is called the holy of holies, and they high priest appeared before this mercy-seat once a year, on the great day of expiation; and the Jews, wherever they worshipped, turned their faces towards the place where the ark flour'd. In the second temple there was also an ark, made of the same shape and dimensions with the first, and put in the same place, but without any of its contents and peculiar honours. It was used as a representative of the former, on the day of expiation, and a repository of the original copy of the holy scriptures, collected by Ezra and the men of the great lyagogue, after the captivity. And in imitation of this, the Jews to this day have a kind of ark in their synagogues, wherein their
ARK

sacred books are reposed: this they call arem. Leo of Modena gives a description of it, in his account of the customs and ceremonies of those of his nation: "The Jews (they say), in the corners of their synagogues, have an ark, or armarv, called arem; in memory of the ark of the covenant. In this are preferred the five books of Moses, written on vellum, with ink made on purpose." &c. Some have supposed that the figure of this ark is still remaining on the triumphal arch of Titus at Rome; though Villalidos and others, with greater reason, are of opinion that it is the table of Alhambra. Prideaux's Conn. vol. ii. p. 297. Lowman's Traits, p. 132. Tertullian calls this ark, Armamentum Judaicum; whence the phrase, to be in the armarv of the synagogue, q. d. in the number of canonical writings.

A chest or coffier, very nearly resembling the Jewish ark, and called the "house of the God," was found in Hussein, one of the islands of the southern sea. Mr. (Sir Joseph) Banks could obtain no other information concerning it than what the name imports. Hawkewthorn's Account, &c. vol. ii. p. 252.

Ark is used for a large chest, in which corn and fruit are deposited.

ARK, or ARKs, in Conchology, the trivial English name of all such shells as belong to the Linnaean genus Arca, and corresponding with the French name Arche. See ARCA.

ARK island, in Geography, one of the two small islands, which lie between the islands of Guernsey and Sark; the other is called Arm.

ARKA. See ARCA.

ARKADEL, Gial com or Jacques, in Biography, was a disciple of Juiquin, and seems to have spent the chief part of his life in Italy, as the first editions of his principal works were printed at Venice, between the years 1539 and 1575.

The number of his motets that was published then, in different collections of the times, is very considerable; but his madrigals were received with such avidity, that five books of them were published at Venice, between the years 1539 and 1541, in one of which is the celebrated madrigal, Il bianco e dolce signor contadino nuoro, highly favoured all over Europe; and his reputation for this species of composition was so great in Italy, that, according to Adami, who enumerates him among theingers and composers of the pontifical chapel, his name was sometimes prefixed to the productions of others, in order to forward their sale.

Why Du Verdier and others have called Arkadel a Frenchman, Dr. Burney do not know: his master, at least, was a Netherlander, and his name has a very Flemish appearance. He was at Venice in the elder Doni's time, and composed chiefly to Latin and Italian words. Whatever country gave him birth, he was an excellent composer; and, for the time in which he lived, his melodies are uncommonly natural, smooth, and graceful.

ARKADINSKAIO, in Geography, a town of Russian Tartary, in the country of the Collacks, on the river Medveditz, 240 miles north-east of Azep, and 124 south-west of Stratov. N. lat. 50° 10'. E. long. 43° 4'.

ARKANSAS, a north-west branch of Missipii river, which falls in by two mouths, and forms an island, whose north-western point lies in N. lat. 33° 55'. W. long. 91°. Its length is thirty-five, and breadth ten miles.

ARKEEKO, a town of Abysinia, seated on a large bay of the Arabian gulf, and confining of about 400 houses, of which some few are built of clay, and the rest of coarse grass-like reeds. There is water enough for large ships close to Arkéeko, but as the bay is open to the north-east, it is uneasy riding in blowing weather. The bottom is composed of loft sand. In standing in upon Arkéeko from the sea, through the canal between Shekh Scide and the main land, it is necessary to range the coast about a third nearer the main than the island. The point, or Shekh Scide, stretches far out, and has shallow water upon it. The cape that forms the south west side of the large bay is called "Ras Gedem," being the rocky base of a high mountain of that name, seen at a considerable distance from sea, and distinguished by its form, which is that of a hog's back. In the bay between Arkéeko and Maféesh are two islands, Toudlout and Shekh Scide; the first on the west, the other on the south, both uninhabited and delitute of water. Shekh Scide has a marble, or fain't's tomb, on the west end. It is not half a mile in length, when not overflowed; but has two large points of sand which run far out to the sea and well. Its well point runs so near to Toudlout, as, at low water, scarcely to leave a channel for the breadth of a boat to pass. N. lat. 15° 33'. E. long. 59° 30'. Bruce's Trav. vol. iii. p. 56.

ARKEL, a district of the united provinces, in the low countries, belonging particularly to that of Holland; comprehending the town and city of Afpeira, of Heuchel, and some villages; and otherwise called the country of Gorkum.

ARKI, a town of European Turkey, situate in Bosnia, at the mouth of the river Bofna.

ARKITES, in Ancient Geography, the descendants of Canna, who inhabited the town of Ark or Arca.

ARKITES, were also a people so denominated, according to Bryant in his "Analysis of Ancient Mythology," from Noah's ark, and the descendants of this venerable patriarch, who sent out various colonies that established themselves in different countries of the globe. They were distinguished by their peculiar rites, and they gave names to the different countries and towns in which they settled, which had a reference to the ark, and their ancestors who were preferred by it from the destruction of the deluge. Thos of whom they came into Greece, settled in many parts, but especially in Argolis and Thessaly, where they introduced their rites and worship. In the former of these regions, they were commemorated under a notion of the arrival of Daunas, or Danaus, supposed to have been a person who fled from his brother Agamemnon; and was in a sacred ship given by Minerva; which, like the Aro, is said to have been the first ship that was constructed, and he was assisted in the building of it by the same deity, divine wisdom. Danaus, upon his arrival, built a temple, called Argus, to Jônah, or Jono, of which he made his daughters priestesses. The people of the place had an obscure tradition of a deluge from which some few escaped, the principal of whom was Deucalion, who took refuge in the Acropolis, or temple. The Arkites who settled in Thessaly carried with them the same memorials, concerning Deucalion and his deliverance, which they appropriated to their own country. These Arkites, and their rites, extended very widely, from Chaldea and Babylonia, where they originated; and passed from Egypt and Syria, to Phrygia and Pontus, Thrace and the cities of Greece; and they were likewise carried into Hetruria, and into the regions of the Celn, and traces of them are to be observed as high up as the Suevi. Bryant thinks, that the Arkite rites prevailed in many parts of Britain, especially in the isle of Mona, which was afterwards the chief seat of the Saroniodes or Druids; and he conceives, that this island had its name Mona, or Menai, Men-ai, the island of the god Lunnus, from its rites. The same worship was probably further introduced, as he imagines, into some of the Scottish isles, and particularly into that called Columb-kil or Columba. To the claps of Arkite priests Bryant refers the Cabiri, or Curetes, Corybantes,
A R K

bantes, Telephines, and Idai Dafylyi, who belonged to the same order, under different denominations. See ARGOLIS, ARGONAUTS, and ARK.

ARKK-T-KAN, in Geography, a town of Alfaci Turkey, in the province of Caramania, eighteen miles east of Alikhehr.

ARKLOW, a small neat town of the county of Wicklow, in Ireland; situate near the mouth of the little river Owen, or Ovo; and having a haven for small craft. The copper mine company have had thoughts of making the river navigable to Rathdrum; but the port is so bad, and the coast so sandy, that the vessels must remain about a mile off, and put out to sea on the flight appearance of bad weather. There was a desperate battle fought here, on the 9th of June 1793, between the insurgents, twenty thousand strong, and the king's troops and yeomanry under general Needham. The town was set fire to by the rebels, and great part of it destroyed; but they were finally repulsed with considerable loss. Distance from Dublin thirty-six miles. N. lat. 52° 48'. W. long. 6° 51'.—In 1795, a discovery was made of native gold in a brook that descends from the north-east side of a mountain about 600 yards above the level of the sea called Kinsbally, and situate about seven English miles to the west of Arklow. This discovery was made public, and the researches for gold began early in the month of September, and continued till the 18th of October, during which period of about six weeks, the quantity of gold that is supposed to have been collected amounted to 500 ounces. The gold was of a bright yellow colour, perfectly malleable; and it was found in pieces of various weights, forms, and sizes, from the most minute particle to 237.7 dwts.; one piece of 2 oz. and another of 22 oz. were also found. Two specimens of this gold were assayed by his majesty's assay-master in the tower of London; one of which appeared to contain, in 24 carats, 11% of fine gold, 12% of fine silver, and 3% of alloy, which seemed to be copper tinged with a little iron. The works were taken possession of by order of government; and the operations of the peatmen, who in great numbers had been indolent in their researches, were discontinued. Phil. Trans. vol. lxxxvi. p. 34—45.

ARKLOW bank, denotes sand-banks in the Irish sea, about ten miles long, and scarcely one broad, five miles from the coast of Ireland, having the town of Arklow nearly opposite to the middle part of them.

ARKWRIGHT, Sir Richard, in Biography, an eminent manufacturer, advanced himself, by his mechanical inventions for carding and spinning cotton, from the humble station of a country barber to an immense fortune and an honorary title. For performing these operations of carding and spinning by means of machinery, it was required either that the usual manner of the carder should be effaced with square cards, or that cylinders, covered with a kind of metallic brush-work, should be made to revolve in contact with each other, either to card or to strip, according as the respective velocities, directions, and inclinations of their wires might be adjusted. With regard to spinning, it would be indispensably necessary, not only that the raw material should be very nicely prepared, but also that it should be regularly drawn out by certain parts representing the fingers and thumbs of the spinner. The contrivance for this purpose consisted of a certain number of pairs of cylinders, each pair revolving in contact with each other. Suppose then that a loose thread or slightly twisted carding of cotton were made to pass between one pair of cylinders, properly adapted with a facing for holding it, and that it proceeded from thence to another pair, whole surfaces revolved with a much greater velocity; it is evident, that this quicker revolution would draw out the cotton, and render it thinner and longer when it came to be delivered at the other side. This is the operation which the spinner performs with his finger and thumb; and if the cotton be delivered to a spinning apparatus, it will be converted into thread.

Sir R. Arkwright contrived to make these rotatory carding and spinning engines to move by horse, by water, and by steam; and thus, by the saving of labour, and with the advantage of a patent monopoly, he was rendered one of the most opulent of our manufacturers.

After he had quitted his original busines; in the year 1757, he came to Warrington, where he projected a mechanical contrivance for a kind of perpetual motion. A clock-maker of this town, whose name was John Kay, accused him from it, and suggested that much money might be gained by an engine for spinning cotton, which Kay promised to describe. Arkwright at first objected, but afterwards asked Kay, if this engine might be made at a small expense? Kay had been employed in making a cotton spinning engine; and in the trial for setting aside Arkwright's patent, it was proved that he had invented such an engine, but he had not brought it to perfection. Kay and Arkwright applied to Peter Atherton, Esq. of Liverpool, for assistance in the construction of such an engine, who, discouraged by the mean appearance of the latter, declined undertaking it; though he from after agreed to lend Kay a smith and watch-look maker to prepare the heavier part of the engine, whilst Kay himself undertook to make the clock-maker's part of it, and to instruct the workmen. In this way Arkwright's first engine, for which he afterwards took out a patent, was made. Mr. Arkwright soon after connected himself in partnership with Mr. Smalley of Preston in Lancashire; but their property failing, they went to Nottingham, and there, by the assistance of wealthy individuals, erected a considerable cotton mill turned by horses. A person of the name of Hayes had also employed himself in making cylindrical carding engines. Upon the whole, without minutely detailing further particulars, it appears that the cotton spinning was no new attempt when Mr. Arkwright embarked in it; but many difficulties occurred in bringing it to perfection. In the hands of Mr. Arkwright, the carding and spinning of cotton became a great national manufacture. According to his statement, it appears that the advancement of it during a period of five years, cost him and those that were concerned with him 12,000l. before they derived from it any profit; and it must be allowed, that he alone seems to have had sufficient perseverance, activity, and skill to perfect a scheme, in the prosecution of which many others had failed, and to render it valuable to himself and the public. The merits of Sir R. Arkwright may be summed up with observing, that the object in which he was engaged is of the highest public value; that though his family were enriched, the benefits which have accrued to the nation, have been incalculably greater; and that upon the whole, he is entitled to the respect and admiration of the world." He was knighted by his present majesty on the 24th of December 1786, on occasion of presenting an address from the high sheriff and hundreds of Wirksworth; and died at his works at Crumford in Derbyshire, August 3d, 1792. Gen. Biog. ARL, Gross, in Geography, a town of Germany, in the circle of Bavaria, and biphopric of Salzburg, 10 miles S.W. of Radstadt, and 35 S.S.E. of Salzburg.—Alno, a river of Germany, which runs into the Salza, about 6 miles S.W. of St. John, in the biphopric of Salzburg.

A R L, Klein, a river of Germany, which runs into the Salza, near the town of St. John.

ARLAND, a town of France, in the department of Puy de Dome; and chief place of a canton in the district of Ambert—
hert, 3 leagues south of Amherst. The place contains 7,140,000, and the canton 10,974 inhabitants; the territory includes 167,500,000, and 84 communes.

ARLANZA, a river of Spain, which runs into the Pinarre, between Valvina and Valladolid.

ARLANZO, a town of Spain, in Old Castile, 3 leagues from Lerma.

ARLANZON, a river of Spain, which joins the Arlanza, near Palencia.

ARLAUD, James Anthony, in Biography, a famous painter, was born at Geneva in 1608. His principal attention was devoted to portrait painting, and he excelled in it to such a degree, that the regent duke of Orleans, who favoured him with his patronage at Paris, paid of him, that while other miniature painters produced only images, he had found the means to paint portraits. In 1721 he visited England, and being recommended to the princes of Wales, afterwards queen Caroline, he was much favoured by the court. After leaving England, he made a tour through the provinces of France, and afterwards to Switzerland. Besides portraits, Arland produced some historical pieces, and other works. His Leods, which are copied from a bas-relief of Michael Angelo, which, at a small distance appeared like the original marble, he destroyed, because he thought it too licentious. After a residence of about 40 years at Paris, he returned with a handsome fortune and a good collection of pictures to his native place; where he died in 1745, at the age of 75 years. His valuable collection of paintings, drawings, models, and rare books, he left to the public library of Geneva. Moriri.

ARLAY, in Geography, a town of France, in the department of Jura, and chief place of a canton in the district of Lons-le-Saunier, five miles north of Lons-le-Saunier.

ARLBERG, a mountain of Germany, in the Tyrol, being a part of the Alps, between Bregenz and the lake of Constance.

ARLE, a river of Denmark, which runs into the North sea, four miles south of Bredleede.

ARLEN, a town of Germany, in the county of Tyrol, situate on a mountain, 8 miles N.W. of Landeck.

ARLÉQUIN, or HARLEQUIN, in Natural History, a trivial English name occasionally applied to some birds, insects, shells, and other objects of natural history, that are remarkable for a variety of colours; thus the Tricholus multicolor of Gmelin is called by Dr. Latham the harlequin humming-bird, and the name may be introduced by various other instances of the like nature. — The French naturalists adopt the term arlequin also; for example, arlequin de Ceylanum, the common name of the prionus longimanus, Prion longimanum (Ceranys longimanus of Linnaeus); arlequin doré, the name given by Geofoffy to their Chrysonela cérélle (Chrysonela ceriella of Linnaeus); and arlequin velus, a name given likewise by Geofoffy to their Cétonce velus (Cétonia hirta of Fabricius).

ARLES, in Geography, a town of France, in the department of the East Pyrenees, and chief place of a canton in the district of Ceret, 18 miles S.W. of Perpignan. The place contains 1,126, and the canton 47,766 inhabitants; the territory includes 1,074,750,000, and 14 communes. N. lat. 42° 27'. E. long. 2° 32'.

ARLES, a city of France, and principal place of a district in the department of the mouths of the Rhone, and chief place of a canton, in the district of Tarascon, was, before the revolution, the seat of an archbishop. It is situated in the midst of a fertile country, which produces corn, wine, manna, oil, and fruit of various kinds. This city has several monuments of antiquity, which are worthy of notice. The amphitheatre is of an oval form, and was begun by Julius Cæsar, but never finished. It is in circumference about 1,164 feet, and the front is 102 feet in height. The arena, or middle, is 426 feet long, and 312 broad; the porticos or piazzas are three stories high, built with very large stones, and each of them consists of 60 arches, which in part still remain. The obelisk is of granite, 58 feet high, and 7 feet in diameter at the base, the pedastal is adorned with four lions in marble, and at the top is a blue ball, on which are flower-de-luces of gold, and terminated by a fin. It was dug up near the walls of the city in 1677, erected in the following year, and dedicated to Louis XIV. Here are the ruins of two temples; the remains of a triumphal arch; two large columns of Grecian marble; the wreck of a capital built here by the Romans; the burying place of the Pagans and Christians, set up on the top of a hill, consisting of two parts; one called "Campus Elymus," or "Efiharm," and the other "Moulhires," that of the Pagans being distinguished by two letters, D. M. "Diei munus," and that of the Christians by a cross. Various pieces of gold, silver, and bronze have been found here: and also urns, lamps, and cups, without number. It was at Arles that the statue of Diana was dug up, which was removed to the gallery of Varriæles. On a column erected in honour of Constance the Great, who made this city the seat of empire, repaired its walls, and built a palace in it, is an inscription, which imports that he was the reforer of Arleata or Arles. Thirteen councils were held in this city, between the years 353 and 1661. At Arles there is an academy of belles lettres founded in 1609; the academy of sciences was discontinued after the life of Louis XIV., by whom it was founded. The marshy land that lies in the vicinity of Arles renders it unwholesome. The place contains 9,000, and the canton 23,020 inhabitants; the territory includes 1,047,950,000, and 15 communes. N. lat. 43° 4'. E. long. 4° 25'.

ARLESHEIM, a small but pleasant town of Switserland, about 4 miles from Basle. Within a quarter of a mile from this town is a beautiful hermitage, designed for the employment of the poor in a season of great scarcity, and furnishing agreeable walks for the inhabitants of the town. The walks are carried along the sides of rocks, which are richly wooded, and through a semicircular plain, bounded by fertile hills, and watered by a small lake; several natural caverns add to the romantic singularity of the scenery; while many transparent streams, brought from a considerable distance, fall in small cascades, or bubble from the ground like clear springs.

ARLESUX, a town of France, in the department of the North, and chief place of a canton in the district of Douay, 8 miles N.W. of Cambray. The place contains 1,460, and the canton 9,038 inhabitants; the territory includes 165,950,000, and 15 communes. N. lat. 50° 17'. E. long. 3° 10'.

ARLINGTON, a township in Bennington county, Vermont, 12 miles north from Bennington, containing 561 inhabitants.

ASLINGTON Bay, lies on the east coast of Ireland, within the entrance of Carlingford bay.

ARLINGTON'S Island, is situated not far from the south shore of Magheallan's Strait.

ARLON, a town of the Netherlands, in the comté of Chast, annexed to the county of Luxembourg; and by the new arrangement, in the department of the Forets, and chief place of a canton in the district of Luxembourg. It is a town on a hill near the source of the river Semoir, 17 miles east of Luxembourg, and 14 south of Buitague. The place contains 3,140, and the canton 14,680 inhabitants; the territory includes 310,050,000, and 13 communes. N. lat. 49° 53'. E. long. 5° 27'.

ARLOTTO, in PIOVANO, or the Deux, in Biography,
ARM

was born of a family named "Mainardi," at Mugello, near Florence, in 1395, and at the age of 28 years adorned the clerical professed. His peculiar talent of contributing to the amelioration of society by his humanious extravagances and repineries in conversation, he obtained ecclesiastical preference, of which the height was the rural deanery of St. Crezi, in the diocess of Fiesole. Lofs celebrated as a poet as a bush, he rambled over Italy and other countries, diverting those with whom he associated by his pleasantries and singularities; and thus recommended himself even to Lorenzo and Giuliano della Medici. After his death, which happened in 1483, at the age of 87, a collection of his jests, witaffins, and adventures, was printed under the title of "Facieeli Fabule e Matti del Piovo Arbotto, Prete Fiorentino," which has been frequently reprinted. Nouv. Dict. Hilior.

ARLY, in Geography, a river of Savoy, which runs into the Iera, near Conflans.

ARLYNO, in Ornithology, a name by which the Linnean Asticylla omamata is known in some parts of England. This is the bird, called by Ray, Willughby, and other old writers, the cowl-finch, or white-tail, and is the wheat-eat of modern English ornithologists.

ARM, bastard, in Anatomy. Strictly speaking, signifies the whole of that part of the upper extremity which intervenes between the shoulder and the elbow.

ARM, Amputation of, in Surgery. See Amputation.

ARMatis. See Axilla.

ARM, or presentation, in Midwifery, is when the arm or hand of the fetus presents to the orifice of the uterus, instead of the head. In natural labors, that is, when the head of the fetus is the presenting part, and frequently when the breech presents, they may be easily perceived through the parietes of the uterus and vagina, at whatever period of gestation labour comes on, even before the os uteri begins to be dilated; but when the arm, or any other part, presents, the body of the fetus being thrust down with more difficulty, it frequently happens, we are not able to distinguish the presenting parts until the os uteri is considerably dilated; and sometimes they are not to be discovered until the membranes are ruptured, and the waters are flowing away. Whenever, therefore, on examining per vaginam during a pain, no part of the fetus can be distinctly felt, we shall be generally right in concluding that the labour will be prernatural, that is, that the arm, shoulder, or some other part than the head or breech of the fetus, will present to the orifice, unless the descent of the fetus be prevented by the unnatural projection of the brim of the os, or the pelvis be in some other way contracted and dilated. In these cases, by the general consent of practitioners, the child must be turned and extracted by the feet. For the manner of performing this operation, see PREMATURAL LABOURS.

Arm of a horse, is that part of his fore leg which is intercepted between his shoulder and knee. See Horse.

ARM, in the Manager, is applied to a horse, when he endeavours to defend himself against the bit, to prevent obeying or being checked thereby.

A horse is said to arm himself, when he presses down his head, and bends his neck, so as to roll the branches of the bridle upon his briscket; in order to withstand the effort of the bit, and guard his bars and his mouth.

A horse is said to arm himself with the lips, when he covers the bars with his lips, and deadens the pressure of the bit. This frequently happens in thick-lipped horses. The remedy is by using a bit-mouth, forged with a cannon or serratemouth, broader near the bars than at the place of its pressure or reft upon the bars.

For arming against the bit, the remedy is, to have a wooden hallow covered with velvet or other matter, put on his chaul, which will so press it between the jaw bones, as to prevent his bringing his head so near his breast.

ARM, in Geography, is used for a branch of a sea or river. Italy and Sicily are only parted by an arm of the sea. St. George's arm, in the Mediterranean, is the Thracian Bosphorus.

ARM Island. See Ark.

ARM, among Gardeners, is sometimes used in respect of cucumbers and melons, in the same sense a branch of other plants.

ARM is also figuratively used for power. Theicular arm is the lay or temporal authority of a secular judge; to which recourse is had for the execution of the sentences passed by ecclesiastical judges. The church feds no blood; even the judges of inquisition, after they have found the person guilty, surrender him to the secular arm. The council of Trent, held in 1541, decrees, that recourse he had to the secular arm to repress those who refuse obedience to the church; for secular arm, they hare here exterior power.

ARM, in the Military Art, Heraldry, &c. See ARMS, and ARMOR.

ARM, in Sea Language, a ship is said to be armed, when fitted out, and provided, in all respects for war.

Armed ship more peculiarly denotes a vessel that is occasionally taken into the service of government in time of war, and employed to guard some particular coast, or attend on a fleet. All ships of this sort are commanded by an officer of the navy, and are upon the same establishment with the king's ships.

Also a cross-bar shot is said to be armed, when some rope-yarn, or the like, roller round about one end of the iron bar which runs through the shot, both that the shot may be better bammed down into the gun, and left the sharp end of the bar should catch into any honey-combs within the cylinder of the piece.

ARM, Yard. See Yard.

ARM, in respect of the Magnet.—A loadstone is said to be armed, when it is capped, cased, or set in iron or steel, in order to make it take up the greater weight, and also to distinguish its poles. See ARMED MAGNET.

ARMA, in Geography, a small province of South America, with a town and a river of the same name. The soil is so fertile, that it produces maize twice in the year.

ARMA dore, to give arms, in some ancient charters, signifies to dub or make a knight.

ARMAR deporner, to lay down arms, was a punishment anciently enjoined when a man had committed an offence. Leg. Hen. I.

ARMA mutare, q. d. to change arms, was a ceremony used to confirm a league or friendship.

ARMAR molata, were sharp weapons: Ficata calls them arma emolita.

ARMAR reversata, inverted arms, was a punishment when a man was convicted of treason or felony.

ARMADA, a Spanish term, signifying a fleet of men of war. The armada which attempted to invade England in the time of queen Elizabeth A.D. 1588, is famous in history; it was partly scattered by the wind, and partly subdued by the English fleet. On which occasion a medal was struck with this motto, A[ff]lavit Deus, et dissipatur.

The situation of Philip II. at the time when he projected this invasion, was such as furnished a variety of motives, not only to induce his undertaking it, but to flatter him with the hope of success. Whilist secretly meditating his design in the preceding year, and actually commencing his preparations, Drake destroyed a whole fleet of transport saw Cadiz, laden with ammunition and naval stores; he also ravaged his western coast, insulted Lisbon, and took a rich carrack,
carrack, laden with treasure and papers of great importance. By this townd expedition, the means of which had been furnished by the London merchants, the naval preparations of Spain were disconcerted, the proposed expedition against England was retarded twelve months, and the queen had leisure to make more secure measures against that formidable invasion. Cavendish had also, in the same year, committed great depredations on the Spaniards in the South-Sea; having taken nineteen vessels, some of which were richly laden; and after returning by the Cape of Good Hope, he had entered the river Thames in his way to London with a kind of triumph. His mariners and soldiers were clad in silk, and his sails were of damask, his top-sail cloth of gold, and his prizes were esteemed the richest that had ever been brought into England. Philip, provoked by these hostilities on the part of Elizabeth, had harboured for a considerable time a secret and violent desire of revenge. His ambition also, and the hopes of extending his empire, were much encouraged by the present prosperous state of his affairs; by the conquest of Portugal, the acquisition of the East-Indian commerce and settlements, and the yearly importation of vast treasure from America. Besides, his highest glory was connected with that perpetual object of his policy, which was the support of orthodoxy and the extermination of heresy; and as the power and credit of Elizabeth were the chief bulwark of the protestants, he hoped, by fubiaging that prince, to acquire the immortal renown of re-uniting the whole Christian world in the Catholic communion. Above all, his indignation against his revolted subjects in the Netherlands, inflamed him to attack the English, by whom they were encouraged and supported. The period which he had chosen for this purpose was peculiarly favourable to his design; as a truce had been lately concluded with the Turks; the empire also was in the hands of a friend and near ally; and France, the perpetual rival of Spain, was so distracted with internal commotions, that she was incapable of directing her attention to her foreign interests. Thus circumstanced, Philip was determined, by one bold effort, to acquire that ascendant in Europe, to which the present greatness and prosperity of the Spaniards seemed so fully to entitle them; and he therefore proceeded immediately to the execution of his ambitious project. His preparations had been for some time conducted with studied secrecy and reserve; but when his resolution was formed, every part of his extensive empire was put in motion with the utmost dispatch. And all his ministers, generals, and admirals were employed in forwarding the design. The marquis of Santa Croce, a sea officer of great reputation and experience, was designated to conduct the naval equipments, and to command the fleet. Accordingly the plans were laid and measures were taken in all the ports of Sicily, Naples, Spain, and Portugal, for fitting out such a fleet and embarkation as had never before had its equal in Europe. The military preparations in Flanders were no less formidable. Troops were collected from all quarters for reinforcing the duke of Parma; and an army of 34,000 men was assembled in the Netherlands, which was kept in readiness to be transported into England in boats and flat-bottomed vessels, previously prepared and conveniently flationed for this purpose. To the most renowned nobility and princes of Italy and Spain, who were ambitious of sharing in the honour of this great enterprise, might be added some hundreds of desperate English renegades under the conduct of Stanley, who had been already proscribed for filling a Dutch fortress to Spain. The Spaniards, ostentations of their power, and elated with vain hopes, had already denominated their navy the "Invincible Armada." As soon as the news of this proposed invasion reached the court of London, the queen made preparations for resistance; nor was she dismayed by that power, by which all Europe apprehended the might of necessity be overwhelmed. Her forces, however, seemed very unequal to such a formidable enemy. All the sailors in England amounted at that time to about 14,000 men, and the royal navy consisted only of 28 ships, many of which were of small size. The dexterity and courage of the seamen far surpassed those of the Spanish mariners, and compensated for the inferior size and force of their vessels. The alarm roused the exertions of the English people; and they concurred with singular alacrity in defending their liberty and religion against those imminent perils with which they were menaced. The city of London supplied thirty ships and 10,000 men; other ports followed this example; the nobility and gentry, among whom were several Roman Catholics, and even all uns, hired, armed, and manned 43 ships at their own charge; and all the loans of money which the queen demanded, were cheerfully granted. The command of the navy was entrusted and anxious spectators of this contest, a man of courage and capacity, and under him, as admiral, served Drake, Hawkins, and Frobisher, the most renowned names in Europe. The principal fleet was stationed at Plymouth; and a smaller squadron of 40 vessels, commanded by lord Seymour, second son of the protector Somerset, lay off Dunkirk in order to intercept the duke of Parma. An army of 20,000 men was dispersed in different bodies along the coast; and a body of 20,000 foot and 1000 horse, under the command of the earl of Leicester, was stationed at Tilbury, in order to defend the capital. The principal army consisting of 34,000 foot and 2000 horse, commanded by lord Haldon, guarded the queen's person, and had orders to march whitherover the enemy should appear. James, the Scots king, retained his engagements, with a fleet which was of great importance to England and the Protestant cause, and kept himself prepared to march with the force of his whole kingdom to the assistance of Elizabeth; and the queen obtained some secondary aid from Denmark and the Hanse-towns. In a word, all the protestants throughout Europe were interested and anxious spectators of this momentous contest. In order the more to excite the martial spirit of the nation, the queen appeared on horseback in the camp at Tilbury; and riding through the lines, discovered a cheerful and animated countenance, exhorting her soldiers to remember their duty to their country and their religion, and professing her intention, though a woman, to lead them herself into the field against the enemy, and rather perish in battle than survive the ruin and slavery of her people. The loyalty and enthusiasm of the soldiers were elevated into a kind of phe nousy, and they were prepared for any exertion which the cause in which they were engaged might require. In the beginning of May, the armada was ready; but when it was preparing to sail, the admiral, the marquis of Santa Croce, and the vice-admiral, the duke of Paliano, both died; and the duke of Medina Sidonia, a nobleman altogether unacquainted with naval affairs, and unexperienced in action, was appointed admiral. On the 29th of May, the Spanish fleet left from Lisbon; but the next day it was intercepted by a hostile fleet, and some of the smallest ships were sunk, whilst the others took shelter in the Groane. As soon as the armada was refit, it sailed again towards the English coast. The fleet consisted of 150 vessels, of which about 100 were galleons of larger size than any before used in Europe; and it carried on board 19,295 soldiers, 8456 mariners, 2088 galley-flavises, and 2650 great pieces of brass ordnance. It was victualled for six months, and attended by 30 smaller vessels. Superstition too added her fanatical but powerful aid: bulls, denoue-
ing hell-fire to Elizabeth and her abettors, accompanied the squadron; and a confederate banner from Rome waved over the heads of these new crusaders. On the 10th of July, the armada arrived in the channel, disposing itself in the form of a crescent, and stretching to the distance of seven miles from the extremity of one division to that of the other. The English admiral had just time to get out of port, when he saw it in full sail, as Bentivoglio, an Italian writer, in a kind of poetical language, describes its progress, and yet advancing with a low motion, as if the ocean groaned with supporting, and the winds were tired with impelling, to enormous a weight. As the armada proceeded up the channel, Elizabeth, with the English fleet consisting of 140 ships, gave orders to avoid a close fight, but to skirmish with the larger ships of the Spanish fleet, which it continued to do for six days. The armada, having reached Caiaus, call anchor before that place; and waited for the arrival of the prince of Parma, who delayed leaving the Frenli ports until he was assured that the Spaniards were masters at sea. While the Spanish fleet lay confounded in this position, the English admiral, by a successful stratagem, dispatched eight of his smaller ships filled with combustibles, one after another, into the midst of the enemy; and thus alarmed them to such a degree, that they immediately cut their cables, and betook themselves to flight with the greatest disorder and precipitation. The English fell upon them the next morning, took about 12 of their larger ships, and damaged several others. The Spanish admiral having destroyed only one small vessel of the English, and perceiving that his own fleet had greatly suffered, and was in danger of being totally destroyed, prepared to return to quarters; but as the wind opposed his passage through the channel, and the English vessels harasscd his retreat, he determined to sail northwards, and make the tour of the island, to reach the Spanish harbours by the ocean. The English fleet for some time pursued him; and if their ammunition had not failed them, the whole armada must have been compelled to surrender at discretion; and indeed the duke of Medina was prevented from doing so merely by the advice of his confessor. The event, however, proved almost equally fatal to the Spaniards. A violent tempest affrighted the armada after it had passed the Orkneys; and the mariners, unable to govern their unwieldy ships, yielded to the fury of the storm, and allowed their ships to drive either to the western isles of Scotland, or to the coast of Ireland, where they were miserably wrecked. At length, after the experience of insufferable humiliation and distress, the flattered fleet, confiding of less than half its number, returned to Spain; and the seamen and soldiers, very much reduced by famine and disease, and the various hardships with which they had encountered, filled the country with accounts of the desperate valour of the English, and of the tempestuous violence of the ocean that surrounds them. Philip, as soon as he heard of the disastrous event, to mortifying to his pride and ambition, with an afflicted philosophy fell on his knees, and rended his hair, for that gracious dispensation of Providence, expiated his joy that the calamity was not greater. The Spanish priests, who had frequently foretold the infallible success of this holy crusade, perplexed in accounting for the victory which had been gained over the Catholic monarch by uncommunicated heretics and an execrable inulper, at last discovered, that all the calamities of the Spaniards had proceeded from their allowing the infidel Moors to live among them. The first English newspaper, entitled the "English Mercury," was printed during the time of the Spanish armada; the first number, dated the 23d of July 1588, is still preserved in the British Museum. Hume's *Hift. vol. v. p. 310—345.* Watson's *Hift. Philip II.* vol. iii. p. 122. *Andrews' Hist. Great Britain,* vol. i. p. 145.

**ARMADILLO.** In *Entomology,* one of the species of the Oniscus genus, described by Linnaeus in his *Fauna Suec.* It is oval, eminently brown, with a tail obtuse and entire. This kind inhabits Europe; licks under stones; and is called by Ray *aflalus bivittus.*

**ARMADILLO.** In *Zoology,* the name given by English writers to those quadrupeds which in the Linnaean system constitute the genus *Dasypus;* it is derived from the Spanish word *armadillo,* and is synonymous with the French *talon.* See *Dasypus.*

**ARMAGAR.** In *Ancient Geography,* a town of India, on this side of the Ganges. *Ptolemy.*

**ARMAGEDDON.** See *Megiddo.*

**ARMAGH, or ARMAGH,** in *Geography,* the name of one of the counties of the province of Ulster in Ireland. It has rough Naghan on the North; the county of Down on the east; Louth on the south; Tyrone on the north-west; and Monaghan on the west. Its length from north to south is nearly thirty-two English miles, and its breadth almost twenty; and the superficial content 181,450 acres, or 283 square miles (386,786 acres, and 454 square miles English). The number of houses, according to the last official return, is 12,000; in which, according to Mr. Bulke's statement, we cannot reckon fewer than 190,000 inhabitants; which is a population of nearly 450 persons to every square mile; a greater proportion than is found in any other county except Dublin. The number of parishes in this county are twenty, and what happens only in Ulster, the number of churches is greater, being twenty-six. Besides the two county members, the city of Armagh sends a member to the Imperial parliament. There is in this county a very little flat ground; but the gentle hills which diversify the face of it, are covered with a very rich soil, except in the district called the Feus which is full of mountains, and in the south-eastern angle which is occupied by the lofty Slieghgullen; but great part even of this rough ground is cultivated, and thickly inhabited. Throughout this county, the farms are small, seldom exceeding from forty to sixty acres, more commonly from five to twenty acres; and the tillage in general is bad, which has been observed to be the case wherever the linen manufacture spreads, because tillage is there only a secondary object. To the industry of the people, and the flourishing state of this manufactures which is carried on in all its branches, the extraordinary population of the county is to be attributed, and indeed there is no part of Ireland which affords such pleasing spec;tales to a philanthropic observer. Yet, strange to tell, this apparently happy spot, where industry seems to confer every blessing, has been the scene of most of the disturbances which have taken place in the north; and both the Oak-boys and Defenders had their origin in it. There is no river of confluence in Armagh, but
but the Blackwater which separates it from Tyrone, on its north-western boundary is navigable for some miles into Lough Neagh; and the river Bann, and the Newry canal, afford a water-carriage from the lough to the bay of Carlingford on the eastern side. There are some considerable bogs from which the inhabitants are supplied with abundance of good turf, which is much used for firing. Some good marble is also found in this county. Armagh was one of the countries forfeited to the crown after the reduction of the cast of Tyrone, in the latter end of queen Elizabeth's reign, and was colonized under James the First; and the northern part is still called Oneill-land from the family name of that noted chieftain. The affrays are held at the city of Armagh. Beaumont, Young, &c.

Armagh, a city, and the capital of a county to which it gives name, in the province of Ulter, Ireland. It is said to have been founded by St. Patrick in the fifth century (though the very existence of such a person has been questioned), on an eminence from which it acquired its name, which implies a great high place or field. On the establishment of Chriftianity in this country, Armagh became a considerable city, and a celebrated university, which was not only reftored to by the natives, but also by the Angle-Saxon youths from Britain. In the seventh century it was nearly destroyed by fire; and on the arrival of the Danes, was frequently plundered, and the greater part of its records taken away and destroyed. In 1152, cardinal Paparo being sent to Ireland as legate, constituted Armagh the metropolitian see of Ireland; and it was provided for solemn ordinance, that no one should be allowed to profess or teach theology, who had not been educated at its university. This University however has been long extint. The town was frequently plundered by the English before the reduction of that part of the island, and it was entirely destroyed by O'Neill in the reign of queen Elizabeth. It was soon after rebuilt and garnished, and has latterly become a pretty town of good fize, and well inhabited, through the attention and munificence of prince Robinson, lord Roekey. He built there a handsome archiepiscopal palace, and a noble house for the school, which is one of the royal foundations, and extremely well endowed. To these is added a public library for the promotion of science. He also erected a complete observatory; with a liberal establishment for the support of an astronomer, and secured the permanency of his endowments by several acts of parliament. The province of Armagh contains ten dioceses; the archbishop having under him, the bishops of Dromore, Down and Connor, Derry, Raphoe, Clogher, Kilmore, Ardagh, and Meath. The archbishoprick extends into five counties, viz. Armagh, Tyrone, Londonderry, Louth, and Meath, and is reputed to be worth 8000l. per annum. Armagh has one of the best linen markets in Ulter, and there are many bleach-greens in its neighbourhood on the banks of the Calen, a small stream which paffes near the foot of the rising ground on which it is built. Its distance from Dublin is sixty-two miles, N. by W. N. lat. 54° 20' 30". W. long. 6° 32'. Collec't. de Reb. Hiber. N° 11. Beaumont. Leiland.

ARMAGLIA, a town of Arabia, fifty-eight miles south of Cathem.

ARMAGNA, a province of France, in the district of Gafeoyne, and government of Guenoe; before the late division, about thirty six leagues long and twenty-five broad; is bounded on the north by Aragon and Condomais, on the east by Languedoc and the country of Comminges, on the west by Marfon and Bearn, and on the south by the Pyrenees, which separate it from Arragon, and Bigorre. The capital is Auch. It is divided into Upper and Lower Armagnac; the former lies among the Pyrenean mountains, and comprehends four valles; and the latter is more extensive and fruitful, and contains proper Armagnac, and several counties and cardinals. The soil is generally fertile, and produces corn, wine, fruits, and pasture; and the commerce is considerable in wine, brandy, wool, flax, &c. The Armagnacs, who were the adherents of the young duke of Orleans, and so called from the count of Armagnac, father to this prince, formed one of the two parties into which the whole kingdom of France was divided, about the year 1415. The city of Paris, distracted between them and the Burgundians, but inclining to the latter, was at this time a perpetual scene of blood and violence; the king and royal family were often detained captives in the hands of the populace; their faithful subjects were butchered or imprisoned before their faces; and it was dangerous for any man, amid the enraged factions, to be distinguished by a flitht adherence to the principles of probity and honour. The fraternity of butchers declared for the duke of Burgundy, and committed the most violent outrages against the opposite party; whilst the Armagnacs made intertil with the fraternity of carpenters; the populace ranged themselves on one side or the other; and the fate of the capital depended on the prevalence of either party. At length the Burgundians prevailed; butchered many of the faction of Armagnac, and threw the count and several persons of note into prison, who were afterwards murdered by the populace.

ARMAMAR, a small town of Portugal, in the province of Baira and district of Lamago, containing two parishes and about 1500 inhabitants.

ARMAMAXI, compofed of the Latin arma, and the Greek ἀρμαξις, painfulyn, carriage, in Antiquity, a kind of Scythian chariots, or carriages, compofed of two wheels, variously adorned with crowns, shields, barrel-plates, and other trophes, carried in procession after the images of the gods and great men. These were sometimes called amami, or amasa. Pitr. Lex. Ant.

ARMAMENT, a large body of forces, raised and provided with the furniture of war, either for land or sea service.

ARMAMENTA, in Roman Antiquity, comprifed the rigging and toggling of a ship, its Bills, fire-yards, oars, ropes, &c. Hence arna denotes the funs (Virg. Æn. v. 55) and the rudder (vi. 353).

ARMANCE, in Geography, a river of France, which runs into the Armançon, near St. Florentin, in the department of the Yonne.

ARMANCON, or ARMANSON, a river of France, which ripes near Semur-en-Auxois, and runs into the Yonne, near Noyon.

ARMANT, a village of Egypt, feated on the Nile, in the route from Thebes to Eiffe; suppofted by Savary to be the ancient Hermutis.

ARMARCALES, in Ancient Geography, a name given by Abydenus to the artificial channel that connected the two branches of the Euphrates, more properly denominated by Annianus Naarmachca; which fee.

ARMARIIUM unguntum, among Hermetrical Philosophers, a sympathy ointment, or pofition-falve, whereby wounds are faid to have been cured at a distance, by only drefling the weapon.

ARMATA, in Entomology, an European species of Aris, described in the Syntema Naturen from Muf. Leck. It is brown; the head and thorax grey; jaws armed with a tooth at the bafe; bottom of the feet yellow. This insect belongs to the genus Melittta in Kirby's Apum Anglique, in which it is thus defcribed under the fpacific name armata: "Bigna,
ARM

"nigra, cinerascen&-villoa; maxillis longitudine capitis, bafi dente armatis."

ARMATA, 3 species of LEPTURA found in some parts of Europe. The thorax is black and spinous; antennae and legs ferruginous; wing-cases yellow, with two dots, a heart-shaped spot, and three bands of black. Herbll. Gmel. &c.—This insect bears some resemblance to leptura ottomana; the head, feet, posterior thighs and flanks, are black.

ARMATUM, in Ancient Physic, a derivate kind of collyrium, of great value in removing affections of the eye lids. Its chief ingredients were ex ulnun, gum ammoniac, and the roots of the tree thu. This preparation is described by Galen, Aetius. Paulus, and Scribonius.

ARMATORIUS, in Entomology, an insect described in the Florican manifec. It is small, and inhabits Germany; colour black, cutell white; thorax immaculate, posterior part bidenticate; abdomen and legs ferruginous.

ARMATURA, ARMATUM, in a general sense, is the same with what we otherwise call ARMOUR.

ARMATURA is more particularly used in the Ancient Military Art, for a kind of exercize, performed with missile weapons, as darts, spears, arrows, and the like.

In this sense, armatura stands contrasted from palaria; the latter being the exercize of the heavy-armed, the former of the light-armed.

The armatura was practised with great diligence among the Romans; they had their campisclores, on purpose to instruct the tyrones, or young soldiers, in it. Under it were included the throwing of the spear or javelin, shooting with bows and arrows, &c.

ARMATURA is also an appellation given to the soldiers who were light-armed.

Aquinus seems, without reason, to restrain armatura to the tyrones, or young soldiers, under discipline or tutorage in the exercize above mentioned.

ARMATURA is also a denomination given to the soldiers in the emperor's retinue. Dr. Canp.

Of these we find two schools mentioned in the notitia imperii, called the armatura juniores, and armatura seniorus. Their commander was entitled tribunus armatorum.

ARMATUS, in Entomology, a species of CICEREX that inhabits New Holland. The thorax is acutely spined; scutell black with two dots, and apex tesselaceus; antennae and legs red. Fabricius. Gmelin.

ARMATORIUM, in Ancient Geography, a town of Asia, in the greater Armenia. Ptolemy.

ARMAXA, or ARMACA, a town of Asia, in Cappadocia. Anton. Irit.

ARMÊ, in Ichthology, a specific name given by the French naturalists to a fish of the SICILUS genus, found in Asia; and according to Block, in Surinam; this is the Linnean SICILUS majoris. See MILLARIS.

ARMED, in Law. See Arms.

ARM D, in Sea-Language. See Arm.

ARMED in flute. See FLUTE.

ARMED, in Heraldry, is used in respect of beasts and birds of prey, when their teeth, horns, feet, beak, talons, or tusks, are of a different colour from the rest. He bears a cock, or a falcon, armed or, &c.

ARMED at all points, terms applied to a person who is completely covered with armour, except his face.

ARMEDON, or ARMENDON, in Ancient Geography, a name given by Pliny to a small island in the vicinity of Crete, opposite to the promontory of Samothrace; probably one of those nautamels rocks which now encompass Candia.

ARMENA, in Botany, a name given by Pliny to a kind of wild asparagus; but the ancient Greeks have used the same word to express the young shoots of the common asparagus, at the time when they are eaten; and not only thefe, but the young sprouts of the cabbage, and of all other eulent plants.

ARMENIA, in Ancient and Modern Geography, a country of Asia, derives its name, according to the Greeks, from Armonus, one of the Argonauts, who settled in this country.

Bochart (Phileg. i. c. 3.) supposes Armenia to be a contradiction of NEMEN, denoting the mountain of Min, the name of a province of this country, mentioned by the prophet Jeremiah (ch. ii. 27.) and placed by him between Ararat and Aschishen; and probably referred to by Amos (ch. iv. 3.) under the name of NMM, or mountain of the moon. To this purpose Mr. Bryant (Anal. Anc. Mythol. vol. iii. p. 2.) distinguishes between this country and Armenia, the land of Aram, which was separated from it by mount Taurus, supposed it to be denominated from Arm or Hanmen, the mountain where the ark rested.

Armenia was anciently divided into Major and Minor, or the Greater and Lesser.

Armenia Major, or Armenia properly so called, was, according to Strabo, bounded on the south by mount Taurus, separating it from Melopotamia; on the east by the two rivers; on the north by Iberia and Albania, or that part of Carthasis by which both are surrounded; and on the west by Armenia Minor, or the mountains Paryades, by some Pontic nations, and by the Euphrates. Ptolemy divides the whole of Armenia into three districts: the first, comprehending that part which lies between the Cyrus and the Araxes; the second, those provinces which extend well to the bordering of the Euphrates; and the third, all the country lying between the springs of the Tigris, and that part of the Euphrates which separates commagene from Armenia Major. The most considerable cities of ancient Armenia were Artaxata, Sebista, Armenian, Tigranocerta, Artaga, Carpathoecerta, Colon, and Chorda. Strabo enumerates five rivers of principal note; viz. the Lycus and Phasis, falling into the Pontus; the Cyrus and Araxes, discharging themselves into the Caspian Sea; and the Tigris and Euphrates, which disembody themselves into the Persian Gulf. The most considerable mountains were the Molchick, separating the western parts of Armenia from Colheis; the Paryades, extending from the former to the borders of Armenia Minor and Pontus; Matus, bounding the province of Sophene to the south; Asiantirus does to the north; Nipotes, Atus, and the Cordyian mountains. As to the origin of the ancient Armenians, Herodotus, and after him Stephanus, derive them from the Phrygians, on account of several Phrygian words that had been blended with the ancient language of the Armenians. Strabo supposes, that they were originally Syrians, or that the Syrians and Armenians were two tribes of the same nation; and in this opinion Bochart acquiesces, as he discovered a great similarity between these two nations, in their manners and language. However, in process of time, many foreigners settled among them; namely, Phrygians, Greek, and Persians.

Armenia was advanced at a very early period to the honour of a kingdom. After the death of Barzanes, the successor of its first king Scythia, it was divided into several petty kingdoms, as we learn from Pliny (H. N. i. c. 9.). The Armenians were afterwards subdued by the Medes, to whom they were made tributaries by Alyages, but continued to be under the government of kings of their own country. During its submission to the emperor of Persia,
Armenia was reduced to the form of a province, and its rulers were prefects appointed by the Persian kings. Armenia, as a part of the Persian empire, was subdivided by the Macedonians under Alexander the Great; and remained in subjection to the Macedonians till the time of Antiochus the Great. During the minority of Antiochus, Artaxas and Zadrages, two governors of Armenia, united their forces, fixed on the country they governed, and having added to it some neighboring provinces, erected two kingdoms, viz. that of Armenia Major, which Artaxas received for himself, and that of Armenia Minor, which was allotted to Zadrages. Antiochus made several attempts to recover the provinces, which these governors had appropriated to themselves, but his efforts were unsuccessful; and by an alliance with the Romans, they secured to themselves and their posterity the continued possession of them. After the death of Artaxas, the Armenian history is interrupted by a chasm of about 70 years; it is only known, that the Armenians had engaged in a war with the Parthians, which terminated to their disadvantage. Tigranes, however, the king's son, who had been delivered as a hostage to the Parthians, was restored to his kingdom after his father's death, about the year before Christ 95; and entered into an alliance with Mithridates Eupator, against the Romans. Having married Cleopatra, the daughter of Mithridates, Tigranes invaded Cappadocia, and took possession of it, but surrendered it to Ariarathes, the son of Mithridates. Soon after his expedition into Cappadocia, he seems to have made peace with the Romans, and abandoned the cause of Mithridates; and having been chosen king of Syria, indulged his ambition by invading Armenia Minor, and reducing the whole kingdom. After several successful expeditions, by which Tigranes enlarged the boundaries of his dominion, he was defeated with great slaughter by Lucullus the Roman general, in the vicinity of Tigranocerta, who at length took the town, and got possession of the immense treasures which it contained. The consequence of this second defeat was the total dismemberment of the united armies of Tigranes and Mithridates, and the flight of the former to the most remote part of his dominions. During a cessation of hostilities, occasioned by the mutiny of the Roman soldiers against Lucullus, and a disagreement between him and Pompey, by whom he was superseded in the command, Mithridates and Tigranes rallied their forces, overran Cappadocia, and recovered all Armenia, with a great part of Pontus; but Tigranes's son, taking up arms against his father, joined the Romans, and conducted Pompey into Armenia. Tigranes, dispossessed by his son's revolt, met Pompey on his march towards Artaxata, and surrendered himself into his hands. Pompey, after having heard the appeal of the father for justice against his son, restored the kingdom of Armenia to Tigranes, together with the greatest part of Mesopotamia; imposing upon him at the same time a fine of 60,000 talents for making war against Rome without cause. Tigranes, being put in possession of his kingdom, voluntarily yielded to the Romans Cappadocia, Cilicia, Syria, and that part of Phoenicia which he possessed, and referred for himself only his paternal kingdom. His successor Artusdèes, called by Josephus, Arabazes, by Orofas, Artabanes, and by others, Artaxèdes, was put to death by order of Marc Antony; and the kingdom of Armenia was conferred by Antony on Alexander, his son by Cleopatra. Artaxas, the eldest son of Artusdæus, who was proclaimed king by the Armenians, was obliged by the Romans to abandon his kingdom, and fly into Parthia; but he was soon put to death. Tiberius, whom Augustus had deputed to settle the affairs of the state, bestowed the kingdom of Armenia, after the death of Artusdæus, on his younger brother, Tigranes; who was in a little while, by Tiberius's own orders, put to death. The kingdom was afterwards given by Augustus to Artusdæus, supposed to have been the son of Artusdæus; but the Armenians, tired with the Roman yoke, expelled him, and called in Phraates, king of Parthia, pretending submission to the Parthians rather than to the Romans. Upon the approach of the Roman army, Phraates withdrew his arms, and Artusdæus was made king. After a successful conquest of several kings, occasionally under the control of the Parthians, but generally holding the crown as viciss of the Roman empire, being either appointed or confirmed by the emperors; the ancient kingdom of Armenia was reduced by Trajan to the form of a province; and the Tigris was made the eastern boundary of the empire, which Augustus had thought it to extend no farther than the banks of the Euphrates; but it soon recovered its liberty, and was again governed by its own kings, in the reign of Constance the Great, and his successor, to whom the kings of Armenia were feudatories. In the Perisan war, A. D. 76—77, the tributary kingdoms of Armenia and Iberia, the sovereignty and advance of which had been sedulously retained by the Romans, were expelled, without protection, to the arms of the Persian monarch. Armenia was reduced to the state of a Perisan province by Sapor, and the administration was shared between a distinguished satrap and a favorite eunuch. In the reign of Julian II. it was inhabited by the Saracens, A. D. 687, who held it till the irruption of the Turks; and when they took possession of it, about 775 or 882, they gave it the name of Turcomania. The Turks, by invading Persia, and other eastern countries, gave the Armenians an opportunity of throwing off the Turkish yoke, and of chafing kings for themselves, by whom they were governed till the country was again subdued by Occicán or Heccata, the son of Cinigs, and first Cham of the Tartars. The conquest of the Tartars, however, was not so complete as tofully to extirpate from Armenia the race of its own kings; as we read of some of them who reigned afterwards, and particularly in our own chronicles, of Leo, king of Armenia, who, in the reign of Richard II., came into England to solicit aid against the Turks, by whom he had been driven from his kingdom. In the year 1752, Ufain Cahfanes, king of Armenia, succeeding to the crown of Persia, made Armenia a province of that empire; and in this state it continued till the year 1532, when it was subdued by Sisam II. and made a province of the Turkish empire; from time it has ever continued subject to the Turks, except the eastern part of it, which belongs to the Persians. Armenia Minor, was bounded on the east by the Euphrates, which separated it from Armenia Major; on the south by Mount Taurus, parting it from Cilicia; on the west and north by a long chain of mountains, called in different places Mors Scardicus, Aramans, and Antitaurus, which divided it from Cappadocia. This is a very mountainous country, but some of the mountains are intermixed with pleasant and fruitful vales, abounding with oil and wine, not inferior to the best in Greece. This country was a part of Cappadocia, till the reign of Antiochus the Great, when the distinction between Armenia the Greater and the Lesser was introduced; as we have already mentioned. In the time of the Romans it was divided into four provinces; viz. Laviana, Mariana, Araman, and Meltene, each of which had its cities, mentioned by Ptolomy; but those of chief note were Meltene, Nymphopolis, Garamus, Araratia, Daidph, Zaram, and Ladana. The manners, customs, and religion of the inhabitants of Armenia Minor, were
were similar to those of Armenia Major. Its first king was Zalathades, who, forming an alliance with the Romans, was maintained on the throne which he had usurped. Nero bestowed this kingdom on Ardisobulus, great-grandson of Herod the Great; upon whose death it fell to Tyranus, his near relation; and as he died without issue, Armenia Minor was made by Vespasian a province of the Roman empire, and thus continued till the division of the empire, when it was subjected to the emperors of the East. On the decline of their power, it was subdued, first by the Persians, and afterwards by the Turks, who called it "Genice," and have held it ever since. Anc. Jn. Hist. vol. viii. p. 363—410. Gibbon's Hist. i. 435. ii. 159, Sc. iii. 137. iv. 157, &c. v. 438. See Armenians.

Armenia is still divided into Lesser and Greater. Armenia the Lesser is one of the two districts of Atalucia; Cappadocia being the other. It has Greater Armenia on the east, Syria on the south, the Exone on the west, and Cappadocia on the north. It is also called Western or Lower Armenia, and is subject to Turkey.

Armenia the Greater, or Turcomania, is bounded on the south by Mesopotamia, and the provinces of Diarbikr, Kurdiylan, and Aderbijan; on the north by Georgia; on the east by Persia, and particularly the province of Shirvan; and on the west by Cappadocia and the Lesser Armenia, from which it is parted by the river Euphrates. It belongs partly to the Turks and partly to the Persians. The chief towns in that part which belongs to the Turks, are Erzerum, the capital of Armenia, Kars, Barazid, Mulh, Argilj, Van, &c. In that part of Armenia to which the dominion of Persia extends, are Erivan, the capital, Ganjas, near the Kur, Nacivan, Adabad, Aftabad, Marced, Cors, &c. Armenia is one of the most healthy and fertile provinces in Asia; it aboundes with mountains and valleys, lakes and rivers, so that the climate is temperate, and the soil rich; and some have conceived from its fertility, as well as its central situation on the globe, that it was the seat of Paradise, or the garden of Eden. Besides all sorts of grain, it produces tobacco, cotton, flax, melon, and grapes, and formerly olives. See Arm. It has also mines of salt, sufficient to supply all Persia. The extreme cold of this country has been long noticed; and to this purpose Sir John Chardin informs us, that he found ice in the rivulets in the mornings of the month of July. The inhabitants are sober and industrious; and they are described as a sensible and polite people. By their frugality and enterprize, they are singularly qualified for commercial transactions. Since the conquest of their country by Shah Abbas, king of Persia, they have been dispersed through various parts of Asia and Europe, and have devoted themselves, as merchants and brokers, to trade, in the conduct of which they excel: hence they are become, in a great measure, masters of the whole trade of the Levant, and are much concerned in that of other places. It is common to meet with Armenians at Leghorn and Venice, and even in England and Holland; whilst they are also known, by their commercial dealings, in Persia, Turkey, and Tartary, and indeed all over the East. Shah Abbas the Great, it is said, with a view of securing the conquest of Armenia, removed into Persia the first Armenians who ever settled there; and on this occasion about 30,000 families were transported into the province of Ghilan only, whence we have brought the first Persian folk. He also caused all the inhabitants of Zulfa, a large city of Armenia, to settle at Isphahan, whence the new Zulfa of Persia took its name. This Zulfa is since become the centre of the commerce of the Armenians; and to this place Shah Abbas these people are said to owe their genius and disposition for trade, little of which appeared before their transmigration into Persia. As Abbas the Great had no other object in view but that of enriching his country, and was sensible that this must be effected by trade, he directed his views to Silk as the most precious commodity, and to the Armenians as the most proper people to be employed in disposing of it. Accordingly, the Armenians, who were at first mere handworkers, were converted by him into merchants; and these merchants are become some of the most able and most celebrated traders in the world. Such has been their extensive and established reputation in this respect, that the cardinal de Richelieu, we are told, had a design to make a settlement of them in France, for promoting the commerce of that country; and the chancellor Seguier granted them a printing-house at Marseille. See Armenians.

Armenia, in Botany. See Prunus. ARMENIAN Bible. See Bible, and Armenian Persian, infra.

Armenian Rule. See Bole.

Armenian Language and Sciences. The Armenians, according to the account given of them by Moses Chorenesis, were, in their original state, rude and savage, without letters, knowledge, and culture, in a great degree ignorant of the history of their ancestors; and indebted for the scanty information respecting them to the books of their neighbours. They had no written characters, and those of their neighbours were not fit for expressing the sounds of their language. At length, however, the art of writing was introduced among them. For a considerable time their transactions were recorded in the Avarian language; in process of time they employed that of the Greeks; and afterwards they made use of that of the Persians. In the time of Moses Chorenesis, the names of their towns, and some other particulars, were expressed in one of these three languages. It was after the introduction of Christianity, that Miecrof, either towards the close of the fourth or the commencement of the fifth century, invented letters that accurately expressed the sounds of the Armenian language, and which are in use among them at this day. This invention, according to the tradition of the country, was revealed to Miecrof in a dream, after the author had in vain attempted to make the discovery himself, and after he had taken many fruitless journeys to procure assistance from the learned. Sir William Jones (Aiat. Ref. vol. iii. p. 12.) is of opinion, that the basis of the Armenian language was ancient Persian, of the time Indian lect with the Zend, and that it has been gradually changed since the time when Armenia ceased to be a province of Iran. However, the letters in which it now appears are allowed to be comparatively modern; and if they be not derived from the Pahlavi, they are probably, as this ingenious writer imagines, an invention of some learned Armenians in the middle of the fifth century. According to Strabo, the language of the ancient Armenians was similar to that of the Syrians; at least it is very probable, from Polycrates (l. iv.), that they used the Syrian characters. The modern Armenians pretend, that, besides their vulgar language, they have a learned one, which has no affinity with the other oriental languages, and which is very expressive, and enriched with all the terms of religion, and of arts and sciences. Moses Chorenesis informs us, that Arztefchich II. took great pains to civilize the Armenians, and to reduce them from that state of barbarity in which they lived; and he says, that agriculture was little and rarely attended to in this country. They could neither build bridges nor construct boats; they had no method of dividing time, and were scarcely able to distinguish...
that the succession of the months. If, indeed, we credit the tables recorded by Berosus, we find that Noah left among the Armenians books of religious ceremonies; that he taught them astronomy, and the divination of years and months; that on this account he was honoured amongst them, under the titles of Osibuma and Arfa, i.e. the "heaven" and "sun:" that they dedicated many cities to him, under the name of Jupiter Sagus, aluming him the soul of the heavenly bodies. The Armenians also tell us, that Noah taught them husbandry, and the planting of vines; that he was their first king; and that, when he quitted Armenia, he left his mother, wife, and several of his descendants, to people the country. However, in later times, the Armenians made considerable progress in the useful arts and sciences; and particularly in the science of commerce. See Armenia.

Armenian Religion. Strabo informs us, that the ancient Armenians worshipped the same deities with those of the Medes and Persians; but this must be understood with some latitude, and as applicable to different epochs of their empire. The chief deity of the Armenians, according to Strabo, seems to have been the goddess Tanais, or Anaitis, whom we know, from other authorities, to be the Nahed or Venus of the Persians; and it is for many reasons highly probable, that one and the same religion prevailed through the whole empire of Cyrus. See Anaitis. For an account of the Armenians after the introduction of Christianity, see Armenians.

Armenian Stone, lapis Armenus, a mineral cuprous stone, or earth of a blue colour, sometimes spotted with green, black, and yellow. It is a very scarce foil, anciently brought only from Armenia, but is now found very pure, though in small quantities, in the mines of Goltseara in Saxony.

The Armenian stone, in its harder state, bears a near resemblance to the lapiz-lazuli, from which it seems only to differ in degree of maturity; they are distinguished by this, that the lapis armenus is fother, and instead of sparks of gold, is often speckled with green.

Boehaive ranks it among semi-metals; and supposes it composed of a metal and earth. Woodward says, it owes its colour to an admixture of copper.

Mr. Kirwan says, that it consists of calcareous earth or gypsum, penetrated with the blue calc of copper: hence it sometimes effervesces with acids, sometimes not; but never gives fire with steel; it loses its colour when heated. Elem. of Mineral. p. 262.

Its chief use is in Mosaic work, though it has some place also in physic. It is a very valuable sublimate in painting, being a bright and florid blue. It was in fo high esteem as a paint, among the ancients, that counterfeits were continually attempted to serve in its place.

Both this and the lapis lazuli are ores of copper.

Armenian Version, in Biblical History, an ancient translation of the scriptures, for which the church of Armenia, according to the unanimous testimony of the Armenian writers, is indebted to Miecrofob, who is said to have finished it in the year 410. This is attested by Moses Chorenena, a disciple of Miecrofob; who adds, that he began with the Proverbs of Solomon. Moses lived in the fifth century, and alludes in the third version of the bible. The internal characters, and the readings of the Armenian version, have convinced the critics in that language, and especially LaCroze, a man of the most profound erudition, that the antiquity ascribed to the Armenian version does not exceed the truth. The learned, however, are divided in opinion, whether it was taken from the Greek original, or from the Syriac version. The Armenians pretend that it was taken from the Syriac; and Moses Chor. (l. iii. c. liv. p. 300) explicitly confirms this opinion. To which it has been added, that the Armenian version contains readings, which are found in no MS. or version, except the Syriac. But another relation from the same writer, (l. iii. c. xii. p. 313.) is adduced on the other side of the question; and this is decisive: for it gives a full and credible account of the care bestowed by the Armenians on their version of the bible, and that they translated it twice from the Syriac, and a third time from the Greek. Hence may be assigned the reason, why the readings of the Armenian version are so frequently different from the Syriac. Another argument, which has been thought decisive in favour of the opinion, that the present Armenian version was not taken from the Syriac, is, that the former contains those books of the New Testament, which were never admitted into the latter. The Armenian version would be an inconvertible treasure, if it had defended to the present age unaltered by time and superlition. But the churches of the Isser Armenia, or Cilicia, submitted in the thirteenth century to the authority of the pope; and Haitho, or Hethem, who reigned from 1224 to 1270, became shortly before his death a Franciscan friar. This prince was not only attached to the church of Rome, but likewise acquainted with the Latin language; and, publishing a new edition of the Armenian bible, he altered, or rather corrupted it, from the Vulgate. He translated, for instance, all the prefaces of Jerom; and as the words of St. John v. 7. were not in the old Armenian MSS., he inferred them probably from the Latin; for thirty-seven years after his death this passage was quoted at a council held at Cis, in Armenia, and is found in other Armenian records. Michaelis, Nat. T. by Marth, vol. ii. p. 98, &c. See Armenian Bibles.

ARMEIANS, in Ecclesiastical History, a division among the eastern Christians, thus called from Armenia, the country anciently inhabited by them.

Some have supposed, that Christianity was established in Armenia by the apostle St. Bartholomew; but this is certain, that in the beginning of the fourth century the Armenian Christians were in a flourishing state. In this century Tiridates the king established an hierarchy; and in the beginning of the sixth, under the patriarch Nerfes, the Armenian church succeeded from other establishments, became independent, and embraced the theory of the Jacobites, some few articles of discipline excepted. The schism of the Armenians is placed eighty-four years after the council of Chalcedon, A. D. 555. It was consummated at the end of seventeen years; and it is from the year of Christ 552, that the era of the Armenians is dated. In the fifth century, Armenia was divided into fifteen provinces, and subdivided into one hundred and ninety-one dioeceses.

The Armenian church, in the sixteenth century, was governed by three patriarchs, the chief of whom reigned in a monastery at Eschminzin, three leagues from Erivan, the diocese of this patriarch comprehends Greater Armenia; and he preaches over forty-two archbishops; he is elected by bishops, and his election is confirmed by the king of Peria. The revenues of this spiritual ruler are such as would enable him to live in the most splendid and magnificent manner; and yet there is no mark of pomp or opulence in his external appearance, or in his domestic economy. His table is frugal, and his habit plain; nor is he distinguished from the monks, with whom he lives, by any other circumstance besides his superior power and authority. A second patriarch, subject to the first, and called the "Catholic," resides at Cis in Cilicia, and has twelve archbishops under him, who govern
ARM

govern the churches established in Cappadocia, Cilicia, Cyprus, and Syria. A third patriarch lives in the island of Aghtamar, in the midst of the great lake of Vanafputumac; he has no more than eight or nine bishops under his jurisdiction, and is regarded by the other Armenians as the enemy of their church. Besides these prelates, who are patriarchs in the true sense of the term, the Armenians have other spiritual leaders who are honoured with the title of patriarchs, though it be unattended with the authority and prerogatives of the patriarchal dignity. Thus, the archbishop of the Armenians, who lives at Constantinople, and whose authority is respected by the churches established in those provinces that form the connection between Europe and Asia, enjoys the title of patriarch. The same denomination is given to the Armenian bishop who resides at Jerusalem; and to the prelate of the same nation, who has his episcopal seat at Camnise in Poland, and governs the Armenian churches that are established in Russia, Poland, and the adjacent countries. They assume the title of patriarchs, on account of some peculiar privileges conferred on them by the great patriarch of Echnaizin; for by an authority derived from this supreme head of the Armenian church, they are allowed to consecrate bishops, and to make every third year, and distribute among their congregations, the holy chrism or ointment, which, according to a custom among the eastern christians, is the exclusive privilege of the patriarchs. After the death of Abas the Great, the Armenian exiles, who, under his protection, had enjoyed the favours of liberty and abundance, were involved in various kinds of calamity. The floruit of perfec- tion shook their confidence; and many of them apostatized to the Mahometan religion. So that it was apprehended that that branch of the Armenian church, which had been planted in Persia, and especially in Isphahan, would gradually perish. On the other hand, the flate of religion in that church derived considerable advantages from the settlement of Armenians in different parts of Europe, for the purposes of commerce. These merchants, who had fixed their residence during the sixteenth century, at London, Amsterdan, Marseilles, and Venice, were not unmindful of their brethren in their native country; but supplied them with Armenian translations of the holy scriptures, and of other theological books, from the European presses, which prevented the illiterate and superstitious people, who lived under the Persian and Turkish governments, from sinking into the most confusmate and deplorable ignorance.

The Armenians, though they agree with the other Monophysites in the main doctrine of that sect, relating to the unity of the divine and human nature in Christ, differ from them, nevertheless, in many points of faith, discipline, and worship; and hence it comes to pass, that they hold no communion with that branch of the Monophysites, who are Jacobites, in the more limited sense of that term. As to the eucharist, they agree with the Greeks, except in this that they mix no water with their wine, and use unleavened bread after the manner of the Latins. Infants of two or three months old are admitted to the communion; and the consecrated bread, soaked in the consecrated wine, is distributed with peculiar ceremonies. When the priest takes the chalice and patrin, he is followed by his deacons and sub-deacons, with flambeaux and plates of copper furnished with bells; thus accosted, with a censer before him, he goes in procession round the fanctua : he then places them on the altar, pronounces the words of consecration, and turns himself to the people, who fall down, kiss the earth, and beat their breasts; then, after taking the bread himself, he distributes it to the people. In the baptism of children, they practise trine immersion; and then the priest binds a small cord of silk and cotton round the neck of the child, anoints his forehead, laves, arm, ribs, hands, and feet, and makes on each part the sign of the cross. The child, after baptism, is carried home by the godfather with the sound of drums and trumpets. The women do not go to church for forty days after delivery; and they observe many Jewish customs. The Armenians celebrate an annual festival, called Cachacouran, which, half Armenian and half Persian, signifies the baptism of the cross. It is generally supposed that this is a religious ceremony, like the theophany of the Greeks, and the epiphany of the Roman catholics. It is celebrated on the sixth of January, and the terms signify "marriage;" but it is not agreed, whether it commemorates the birth of Christ in his mani- festation in the flesh; or his appearance to the wife men when he was manifested to the Gentiles; or his manifestation to the Jews by the voice from heaven at his baptism. Perhaps it is merely a civil institute, resembling the Roman lustrum. The Persians mark this Armenian festival in their almanacks; their Mahometan kings attend it; and some say, it is an imitation of the Abhirkhan of the Guebres, or Gausa, i.e. the festival of lustral water, in use among the ancient Per- lians.

The Armenians abstain very rigorously from eating of blood, and meats strangled, and are much addicted to falling; infomuch that from their discoure, one would conclude that almost their whole religion consists in falling; and the higher the rank of their clergy, so much the greater must be their abstinence. Their monks, every Wednesday and Friday, eat neither fish, nor eggs, nor oil, nor any thing made of milk; and during Lent, they live upon nothing but roots; they are allowed wine only on the Saturday in the holy week, and meat on Easter Sunday. Besides the great Lent, they have four or five others of eight days each, preparatory for the four great festivals of the Nativity, the Ascension, the Annunciation, and of St. George, during which they are not allowed so much as to speak of eggs, flesh, oil, or butter.

Their monastic order is in great repute among them, since one of their patriarchs introduced that of St. Basil; but part of them, which have united with the church of Rome, have changed their ancient rule for that of the Dominicans.

ARMENIAIRE, in Zoology, a term occasionally given by some French writers to the Medusa tribe of Verme Mullusca. See Medus.

ARM, one of the synonymous names of Bos Americanus of Gmelin, an animal which Dr. Shaw considers a variety only of Bos Taurus. "The American Bifon," says that author, "seems to differ in no respect from the European, except in being more faggy, and in having a more protuberant bunch of fleshy filibabe over the floulders: the fore-parts of the body are extremely thick and strong; the hinder parts comparatively weak. The colour of the American Bifon is reddish brown, and the hair in winter is of a wooley nature, falling down over the eyes, head, and whole fore-part of the animal. In summer it often becomes almoat naked, but particularly on the hind part of the body. It grows, according to Lawton, to a vast size, and has been found to weigh sixteen hundred, and even two thousand four hundred pounds; and the strongest man cannot lift one of the flceans from the ground." Gen. Zool. Gmelin, who expresses some doubt whether it be distinct from Bos Taurus, assigns it the fame character as Liunezus.
ARM

Linnaeus had previously given to the variety of that species, namely, cornibus diversicatis, juba longissima, dorso gibboso, only making it a second variety. (Cornibus diversi- catis, name longis, back gibbosus, var. B) This is Boris (Bifon Americanus) cornibus sulcatos reflexis, dorso gibbosus, capitis postera longissima obtusa. Brum. (Bifon Ameri- canus) of Buff. Buffon, Linn. Carol. Buffon, Catheley. Ameri- canus (b) or (c), Dobbs. Didd. American bull, Ram. See Taurus.

ARMENOUNT, or ARAMENZA, in Geography, a village of Spain, in the country of Alava, once a city, and c. of an archbishop, one mile from Victoria.

ARMENTIERES, a town of France, in the department of the North, and chief place of a canton in the dis- trict of Lille, seated on the Lys. It was taken and de- manded by the French in 1817. The place contains 759,800, and the canton 14,974 inhabitants; the territory includes 535,800 acres. N lat. 52° 40', E. long. 3° 5'.

ARMENTORO, a town of Italy, in the kingdom of Naples, and province of Bari, 20 miles S. S. E. of Potenza.

ARMERIA, in Botany. See DIANTHUS.

ARMERIUUS. See DIANTHUS, and SILENE.

ARMET, in Geography, a town on the island of Nonfia- laout, one of the Molucca islands.

ARMIDA, in Entomology, the name of a species of PHALANA, in the Bombyx family, that inhabits Cayenne. The wings are yellow, speckled, and spotted with violet, and a streak behind of the same colour. Fabricius. Gmelin. &c. Off. This is a large insect; the antennae are yellow; the thorax yellow with a violet coloured spot on the back; abdomen yellow with a violet-coloured spot on the frill seg- ments; wings beneath yellow, with a violet spot in the middle. Off. This must not be confounded with the moth figured by Cramer, t. 197, fig. A., under the specific name of Armida, being Phalana Bryterna of Fabricius and Gmelin.

ARMIERES, in Geography, a small town of Hainault, on the Sambre.

ARMIGER, armour-bearer, in Modern Writers, denotes a title of dignity, rendered in English by Esquire.

ARMIGER, in Entomology, a species of CEMEX found in Africa. It is grey; thorax acutely spinous; two dots on the scutel, the antennae and legs pale. Gmelin and Fabricius. Off. This is Coreus armiger of the latter author, and was first described by him in his Species Insectorum.

ARMIGER, a name given by Fabricius to a species of Cancer that inhabits the Southern ocean. The thorax is somewhat smooth, with eight teeth on each side, and five lobes in front; the arms are toothed on each side. Fab. Mant. Inf.

ARMIGER, a name of Monoculus, in the sixth sec- tion of the Gcinuchian fylden, or those furnished with an uintavle shell: eyes two, and placed beneath; two antennae, and from four to eight legs. In this section (Arigera) are only three species, and the present is distinguished from the two others by having six legs. Slab. microcos. Gmel. &c.

ARMILAUSSA, in Antiquity, a short military coat, reaching down only to the knee. Aquin. and Prisci. Lex. Ant.

It was thus called, as being divided both before and behind, and only close about the shoulders, in armas tantum clavia, quos armiludina, f. Had. Orig. I. xix. c. 22.

The word is sometimes also written, armilauda, armulau- sa, armicafa, and armilaeafa.

ARMILAUSSA is also applied, in Ecclesiastical Writers, to the scapular of monks and canons; thus called on account of its hanging from the arms or shoulders. Schmud. Lex. Cereif. p. 73.

The name is vulgarly called patience. ARMILLARIA, in Zoology, one of the VERMES infusoria, belonging to the genus LEUCOPHORA, and both figured and described by Müller in his Zool. Dan. It is invisible to the naked eye, round, and annular; it is rather thickened above, and bent into the form of a ring.

ARMILLA, or ARMILARIA, in Anatomy, named by some Anatomists to the annular ligament.

ARMILLARIA, in Zoology, a creature of the VERMES Mallofer kind, in the genus NAKES. It is subdepressed; palpable above; corn lenticular. This species inhabits the North seas, where it bares itself felt deep in the fudges. The shape is oblong; length an inch and a quarter; on each side of the head are three lenticular fudges; in the body are a hundred and twenty joints, each of which is furnished with a small peduncle on both sides; and the tail terminates in two long filaments or threads. Mull. O. Fabr. Gmel. &c.

ARMILLARY, ARMILARIES, formed of armilla, a bracelet or ring, in Astronomy, an epithet given to an artificial sphere composed of a number of metallic circles, re- presenting the several circles of the mundane sphere put to- gether in their natural order.

Armillary spheres serve to affix the imagination in con- ceiving the arrangements and the motions of the heavenly bodies.

Such is that represented (Plate II. Astron. fig. 14. — Where P and Q represent the poles of the world, A. D. the equator, E. the ecliptic and zodiac, P A G D the meri- dian, or the follicular circle, T the earth, T G the tropic of cancer, H P the tropic of capricorn, M N the arctic circle, O V the antarctic, N and O the poles of the ecliptic, and R S the horizon.

The armillary sphere constructed by Dr. Long, in Pembroke-hall, Cambridge, is eighteen feet in diameter; and more than thirty persons may conveniently sit in it. The lower part of the sphere invisible in England is cut off; the whole apparatus is so contrived, that, when in order, it may be turned round with as little labour as it takes to wind up a jack.

ARMILLARY trigonometer, an instrument first contrived by Mr. Mungo Murray, and improved by Mr. Ferguson, con- taining of five femicircles; viz. meridian, vertical circle, horizon, hour circle, and equator; so adapted to each other by joints and hinges, and so graduated and divided, as to serve for expeditiously resolving many problems in astronomy, dialling, and spherical trigonometry. For the drawing, de- scription, and method of using it, see Ferguson's Tracts, p. 80, &c.

ARMILLATI MILITEIS, those who wore bracelets on their left arms, belted on them by their generals or emperors. But the term is more frequently applied to soft and effeminate soldiers, who wore bracelets on their arms, not as the rewards of their prowess, but marks of their foppish. Aquin. Lex.

ARMILLATUM, in Conchology, a species of Buce- num, figured and described by Lamarck and others. The shell is oblong; the aperture large and toothless; the whorls crowned with a single row of tubercles. Its native place is unknown.

ARMILLATUS, in Entomology, a species of CURCULIO that inhabits the Cape of Good Hope. The thorax is somewhat spinous on the fides; a grey belt near the tip of the thighs; shanks dentated. Sparrn. nov. ad. Stock. There is a variety of this insect entirely of a brownish grey colour, and
and another in which the wing-cases are clouded with grey, and an oblong spot placed obliquely on each side.

Armillatus, a species of Crambus, of a large size, that is found in India. On each side of the thorax are four spines; wing-cases furrugious, with a black margin; a single tooth on the posterior thighs. Gronov. Fabr. See.

Armillustrium, in Antiquity, a feaft held among the Romans; wherein they sacrificed, armed at all points, and with the sound of trumpets.

Some define armillstrium to have been a feast, wherein a general review was made of all the forces, in the Campus Martius. But this does not come up to the point; for Varro does not derive the word from the Latin arma and lustrare, to make a review; but from the custom of holding this feast in the place where the reviews were used to be made, or rather from their going round the place armed with bucklers.

The sacrifice was intended for the expiation of the armies, and the prosperity of the arms of the people of Rome; and was celebrated on the fourteenth of the calends of November. This feast may be considered as a kind of benediction of arms. It was first observed among the Athenians.

Arminiales, in Geography, a small town of Asia Minor, in Albania, at the foot of Mount Taurus; supposed to have been the ancient Cybius.

Armings, in a ship, are the same with scarp cloths, being red cloths hung about the outsides of the ship's upper works fore and aft; and before the cubboard-heads.

There are some also hung round the tops, and called top-armings. See Top.

Arminia, in Ancient Geography, a river of Italy, in Etruria, flowed from north to south between Saturnia and Volinii, and discharged itself into the sea near Forum Aurelii.

Arminianism, the doctrine of Arminius and of his followers. See Arminians.

Arminians, in Ecclesiastical History, the followers of Arminius, who, though educated at Geneva, and having imbibed the doctrines concerning predestination and grace, maintained by Calvin, Beza, Zanchius, &c. began to express his doubts concerning them in the year 1601; and upon further inquiry, adopted sentiments more nearly resembling those of the Lutherans, than of the Calvinists. After his appointment to the theological chair at Leyden, he thought it his duty to avow and vindicate the principles which he had embraced; and the freedom with which he published and defended them, exposed him to the reftament of those who adhered to the theological system of Geneva, which then prevailed in Holland; but his principal opponent was Gomar, his colleague. The controversy which was thus begun, became more general after the death of Arminius in the year 1609, and threatened to involve the United Provinces in civil discord. The Arminian tenets gained ground under the mild and favourable treatment of the magistrates of Holland, and were adopted by several persons of merit ued distinction. The Calvinists, or Gomarists as they were now called, appealed to a national synod; accordingly the synod of Dort was convened by order of the States General, in 1618; and was composed of ecclesiastical deputies from the United Provinces, as well as from the reformed churches of England, Scotland, Hesse, Bremen, Switzerland, and the Palatinate. The principal advocate in favour of the Arminians was Episcopius, who at that time was professor of divinity at Leyden. It was first proposed to debate the principal subjects in dispute, and that the Arminians should be allowed to state and vindicate the grounds on which their opinions were founded; but some difference arising as to the proper mode of conducting the debate, the Arminians were excluded from the assembly; their case was tried in their absence; and they were pronounced guilty of pedilential errors, and condemned as corruptors of the true reigion. In consequence of this decision, they were treated with great severity; they were deprived of all their posts and employments; their ministers were silenced, and their congregations were suppressed. However, after the death of prince Maurice, who had been a violent partisan in favour of the Gomarists, in the year 1625, the Arminian exiles were restored to their former reputation and tranquillity; and under the toleration of the state, they erected churches and founded a college at Amsterdam, appointing Episcopius to be the first theological professor. The Arminian synod has very much prevailed in England since the time of archbishop Laud, and its variations in other countries are very numerous.

The distinguishing tenets of the Arminians may be comprised in the following five articles; relating to predestination, universal redemption, the corruption of man, conversion, and perseverance. With respect to the first, they maintained, "That God, from all eternity, determined to bestow upon all men salvation on the condition that they should continue in his faith in Christ Jesus; and to inflict everlasting punishment on those who should continue in their unbelief, and refuse unto themselves divine favours; so that election was conditional, and predestination in like manner the result of foreseen infidelity, and persevering wickedness."

On the second, the Arminians taught, "That Jesus Christ, by his sufferings and death, made an atonement for the sins of all mankind in general, and of every individual in particular; that, however, none but those who believe in him can be partakers of his divine benefit."

On the third article, they held, "That true faith cannot proceed from the exercise of our natural faculties and powers, nor from the force and operation of free-will, since man, in consequence of his natural corruption, is incapable either of thinking or doing any good thing; and that therefore it is necessary, in order to his conversion and salvation, that he be regenerated and renewed by the operation of the Holy Ghost, which is the gift of God through Jesus Christ."

Fourthly, "That this divine grace, or energy of the Holy Ghost, begins and perfects every thing that can be called good in man, and consequently all good works are to be attributed to God alone; that nevertheless this grace is offered to all, and does not force men to act against their inclination, but may be resisted, and rendered ineffectual by the perverse will of the impatient sinner."

Some modern Arminians interpret this and the last article with a greater latitude.

Fifthly, "That God gives to the truly faithful, who are regenerated by his grace, the means of preferring themselves in this state; and though the first Arminians made some doubt with respect to the closing part of this article, their followers uniformly maintain, "that the regenerate may lose true justifying faith, forfeit their state of grace, and die in their sins."

The modern synod of Arminianism likewise, founded on a comprehensive plan projected by Arminius himself, as appears from a passage in his last will, extends the limits of the Christian church, and relaxes the bonds of fraternal communion in such a manner, that Christians of all sects and denominations, whatever their sentiments and opinions may be,
be, papists excepted, may be formed into one religious body, and live together in brotherly love and concord. But, in order to avoid the reproach of being altogether unconnected by any common principles, Episcopius drew up a confession of faith, expressed for the most part in words and phrases of Holy Scripture, which the Arminians have generally adopted, though not enjoined upon them by any authoritative obligation.

The Arminians are also called Remonstrants, from a humble petition intituled their Remonstrance, which, in the year 1618, they adduced to the states of Holland. Their principal writers are, Arminius, Episcopius, Vossius, Grotius, Calixtus, Lejten, Lejten, and Witsen, who mention many others of more modern date. Brandau's History of the Reformation in the Netherlands; and Molvin's Eccles. Hist. by Dr. Machaon, vol. iv.

The progress of Arminianism has been somewhat retarded, and its prevalence restrained, more especially in Germany, and several parts of Switzerland, in consequence of the ascendant which the Leibnizian and Wolffian philosophy both gained in those countries, particularly among the clergy and the men of learning. Leibniz and Wolff, by attacking that liberty of indifference which is supposed to imply the power of acting, not only without, but against motives, struck at the very foundation of the Arminian system. Besides, by considering the multiplicity of worlds that compose the universe as one system or whole, the greatest possible perfection is the ultimate end of creating good and evil, and the sovereign purpose of governing them, they removed from the doctrine of predetermination the arbitrary procedures and narrow views with which the Calvinists have been charged with loading it, and gave it a new, a more sublime, and a more philosophical aspect. As the Leibnizians laid down this great end as the supreme object of God's universal dominion, and the scope to which all his dispensations are directed, so they concluded, that if this end was proposed, it must be accomplished. Hence the doctrine of necessity, to fulfill the purposes of a predetermination founded in wisdom and goodness: a necessity physical and mechanical in the motions of natural and inanimate things, but a necessity moral and spiritual in the voluntary determinations of intelligent beings, in consequence of propitious motives which produce their effects with certainty, though these effects be contingent, and by no means the offspring of an absolute and immutable fatality. These principles are evidently applicable to the main doctrines of Calvinism; by them predetermination is confirmed, though modified with respect to its reason and end; by them irreclaimable grace, irresistible in a moral sense, is maintained upon the hypothesis of propitious motives and a moral necessity. The perseverance of the saints is also explicable upon the same system, by a series of moral causes producing a series of moral effects. The learned Canisius has written a book for the express purpose of showing the eminent use that may be made of the Leibnizian and Wolffian philosophy, in throwing light upon the chief articles of our faith, "Philosophiae Lib. et Wolf. usus in theologica per praecipua fides capita." Trarion and Leips. ed. 1749. The scheme of necessity, and of partial evil tending to universal good, has been fostered in some parts of Great Britain, and has converted some zealous Arminians into moderate and philosophical Calvinists. But "the zealous Calvinists (says Dr. Macleane) have for the most part held firm to their theology, and blended no philosophical principles with their system; and it is certain that the most eminent philosophers have been found, generally speaking, among the Arminians. If both Calvinists and Arminians claim a king, it is certain that the latter alone can boast of a Newton, a Locke, a Clarke, and a Boyle.

ARMINIUS, or Harmanssen, James, in Biography, founder of the sect called Arminianism, was born at Oude-Water in Holland, in 1560; and he lost his father in his infancy. He was first instructed by a Catholic priest, who was secretly a friend to the reformed religion, and by his liberality encouraged as a student at Utrecht. Upon the death of this patron, he obtained assistance from Rodolphus Scheius, his countryman, and in 1575 accompanied him to Marburg. During his abode in this place, he received information that his native town was polluted by the Spaniards, and he fled thither, determined to return to the sword. At Leyden, he afterwards prosecuted his studies with reputation; and at length the magistrates of Amsterdam provided him with the means of finishing his education at Geneva. The lectures of Theodore Beza on the epistle to the Romans, are supposed to have first suggested to Arminius those speculations, which led him to form a new sect. As he adopted and privately taught the philosophical system of Peter Ramus, he was obliged to withdraw from Geneva; and he then removed to Basle, where he gained great credit by his lectures; after a short interval he returned to Geneva, and enjoyed in tranquillity the society of the learned. Devoid of farther improvement, he visited Padua, in order to attend the philosophical lectures of the celebrated Zabarella; and after having travelled in Italy for five or six months, he returned, in 1588, to Amsterdam, where he found his patrons much prejudiced against him. "It was reported and believed, that Arminius had killed the Pope's toe, whom he had only seen in a crowd; this he had contracted an intimacy with Jesuits, whom he had never heard of; that he had introduced himself to Bellarmin, whom he had never seen; and that he had abjured the reformed religion, for which he was prepared to die." These prejudices, however, as they were occasioned by groundless rumours and calumny, gradually subsided; and the talents and zeal of Arminius, as a fireproof advocate for the reformed religion, and an eloquent preacher, raised him to distinguished notice; accordingly he was engaged to refute a work which had been written against Beza's doctrine of predetermination. In the course of his examination, he became a profligate to the opinions which he had undertaken to refute; and renouncing the Calvinistic doctrine concerning the decrees of God and divine grace, he maintained, that the merits of Christ extended to all mankind, and that the grace of God, which is necessary to salvation, is attainable by all. This change in the sentiments of Arminius took place in the year 1591; and his undigested and honest avowal of it excited hoistilities, which would have been injurious to Arminius, if the magistrates of Amsterdam had not interposed and suppressed the contest. After having officiated as a minister in the church of Amsterdam for fifteen years, Arminius, notwithstanding the heretical opinions which he had adopted, was elected, in 1603, to the professorship of divinity in the university at Leyden, and admitted to the degree of doctor in divinity. In his lectures, and also in his writings, the professor tremulously asserted and defended his opinions, and made many converts both among the clergy and the laity. His adversaries, however, were very numerous; and of these the most violent was his colleague, Francis Gomar. Unable to contend with the various modes of attack by which his enemies percuted him, he funk under a complication of diffeal, and departed this life in the year 1660. Arminius was eminently distinguished by his piety and integrity,
The glasses for this musical instrument are blown as nearly as possible in the form of hemispheres, having each an open neck or socket in the middle. The thickest of the glasess near the brim is about one tenth of an inch, increasing towards the neck, which in the largest glasses is about an inch deep, and an inch and a half wide within; but these dimensions lessen as the size of the glasses diminishes, only observing that the neck of the smallest should not be shorter than half an inch. The diameter of the largest glasses is nine inches, and that of the smallest three inches: between these there are twenty-three different sizes, differing from each other a quarter of an inch in diameter. For making a single instrument, there should be at least six glasses blown of each size, and out of these thirty-seven glasses (which are sufficient for three octaves with all the femtum) may be found, that will either yield the note required, or one a little sharper, and fitting so well into each other, as to taper regularly from the largest to the smallest. The glasses being chosen, and the note for which each glass is intended being marked upon it with a diamond, they are to be tuned by diminishing the thickness of those that are too sharp, which is done by grinding them round from the neck towards the brim, comparing, by means of a well-tuned harpsichord, the tone drawn from the glass by your finger with the note you want, as found by the corresponding fingering of the harpsichord. The largest glases in the instrument is G, a little below the reach of a common voice, and the highest G, including three complete octaves: and they are distinguished by painting the apparent parts of the glasses within, every semi-tone white, and the other notes of the octave with the seven prismatic colours: so that glasses of the same colour (the white excepted) are always octaves to each other.

When the glasses are tuned, they are to be fixed on a round spindle of hard iron, an inch in diameter at the thickest end, and tapering to a quarter of an inch at the smallest. For this purpose, the neck of each glass is fitted with a cork, projecting a little without the neck; these corks are perforated with holes of different diameters, according to the dimension of the spindle in that part of it where they are to be fixed. The glasses are all placed within one another, the largest on the biggest end of the spindle with the neck outwards; the next in size is put into the other, leaving about an inch of its brim above the brim of the first; and the others are put on in the same order. From these exposed parts of each glass, the tone is drawn, by laying a finger upon one of them, as the spindle and glasses turn round. The spindle thus prepared, is fixed horizontally in the middle of a box, and made to turn on braze gudgeons at each end. A square Shank comes from its thickest end through the box, on which a wheel is fixed by a screw: this will serve, like a fly, to make the motion equable, when the spindle is turned by the foot like a spinning-wheel. The wheel is eighteen inches in diameter, and conceals near its circumference about twenty-five pounds of lead, and may be made of mahogany. An ivory pin is fixed in the face of the wheel, about four inches from the axis; over which is put the loop of the string, that comes up from the moveable flap to give it motion. The box is about three feet long, eleven inches wide at the biggest end, and five inches at the smallest end; it is made with a lid, which opens at the middle of its height, and turns up by back hinges. The instrument, thus completed, stands on a neat frame with four legs. This instrument is played upon by fitting before it, as before the keys of a harpsichord, turning the spindle with the foot, and wetting the glasses now and then with a sponge.
a sponge and clean water. The fingers should be first soaked in water; and rubbed occasionally with fine chalk, to make them catch the glaze, and bring out the tone more readily. Different parts may be played together by using both hands; and the tones are best drawn out when the glazes turn from the ends of the fingers, not when they turn to them.

The advantages of this instrument, says Dr. Franklin, are, that its tones are incomparably sweet beyond those of any other; and that they may be swelled and softened at pleasure by stronger or weaker prelurries of the finger; and continued to any length: and when it is once well tuned, it never again wants tuning. Franklin's Letters, &c. on Philosophical Subjects, p. 478.

Mr. Peckrich, the first performer on the new instrument, was, by a fatal accident was burned in his bed at his lodgings in Swiftin's Alley near the Royal Exchange, in 1759, by the hose in which he lodged taking fire in the night, and being destroyed, before any assistance could arrive.

Mr. Selman, a German harpsichord-maker, played publicly afterwards with considerable success in several parts of London and Westminster. But the first and only performer on the Armonica, contrived and so accurately described by Dr. Franklin, in a letter to Padre Beccaria of Turin, was the eldest Miss Davies, sister to Miss Cecilia Davies, the celebrated opera singer, but best known in Italy by the title of P. Inglisha.

The talents of our two countrywomen, the Misses Davies, who resided a considerable time at Vienna, in the same house as the celebrated HaFe and Paufina (see Prent State of Music in Germany, Art. Vienna, vol. i), have been described by the admirable lyric poet, Metaftafo; the eldest for her performance on the Armonica, at that time a new instrument, and the youngest, for her vocal abilities. The Emprefs-queen had been so pleased by their several talents, that in the year 1759, on the marriage of the infant duke of Parma with the arch-duchess Maria Amelie, she deigned Metaftafo to write a cantata, which was set by HaFe, in order to display their several talents. This cantata has been published in late editions of the poet's works, under the title of l'Armonica, the name of the new instrument on which the eldest Miss Davies accompanied her sister, in the performance of the cantata.

A letter written by the poet to the princes of Bel- momont at Naples, recommending the performers to her protection, will serve as a comment to the cantata just mentioned.

The bearers of this most reverential address, are two English young persons, travelling under the conduct of their worthy parents, in order to give testimonies at Naples of their several abilities in music; their names are Miss Mary, and Miss Cecilia Davies: the first performs with admirable skill on an invention of new invention called the Armonica. It is composed of glazes of different sizes, revolving, by means of a pedal, on a spindle. These glazes, forming a regular scale of tones and faint-tones, being delicately touched with wet fingers during their revolution, produce the most uncommonly sweet and celestial tones imaginable; particularly in pathetic strains, for which the instrument is eminently calculated. The other singer, who is poftidal of a very pleasing and flexible voice, sings extremely well, with much art and natural expression; and when accompanied by her sister on the Armonica, she has the power of animating her voice with the instrument, and of imitating its tones so exactly, that it is sometimes impossible to distinguish one from the other. They have been here universally admired and applauded: and my most envious patrons, who has designed to hear them frequently, has honoured them with munificent testimonies of imperial approbation.

Miss Cecilia Davies performed in the theatre of San Carlo at Naples, at the part of Bradomonte, in Metalafaö's new opera of Ruggiero.

In the first fol. edit. of the French Encyclopédie, t. xxviii, printed in 1765, under the article VERRES, MUSIQUE des, Musical glazes, it is said: "they have contrived within these few years to produce a new species of harmony from glazes, which is extremely pleasing to the ear.

"It is pretended that an Englishman of the name of Puckridge is the inventor. However this method has been much known in Germany. The instrument used on this occasion is a oblong square box, in which are arranged and fixed many round glazes of different diameters. In these there is water of different quantities. By rubbing the edge of the glazes with a wet finger very gently, the sweetest, most melodious, and flattened tones are produced, and with these the most agreeable airs are performed.

"The Periards, in very high antiquity, have produced musical sounds by a simlar contrivance; by drinking from porcelain cups, tuned by water, with little flacks, a regular scale is produced." No authority is given for these affirmations. Metalafaö, who had resided near fifty years in Germany, calls the Armonica, "an instrument of new invention." The producing musical tones from drinking-glazes has been long known to the natives of Great Britain and Ireland; but the forming different toned glazes into an instrument, and tuning them by water, we have not the least doubt was the invention of a native of Ireland, of the name of Poekrich; as the placing a series of glazes on a cylinder, or spindle, turned with a pedal, was the invention of Dr. Franklin, who tuned his glazes by grinding, not by water. A drawing of Miss Davies's instrument will be found in one of the plates of musical instruments. Her performance on this musical instrument pleased the great masters on the Continent, that Padre Martini, Haff, Galuppi, Jomelli, Mozart, &c. presented her with original compositions, purposely produced for the Armonica, upon which she often playi, extempore, till more exquisite brains than these great composers, at an early period of its invention, thought this instrument capable of expressing.

ARMOR, or ARMOUR, in a general sense, is a term that may be applied to any defensive habit, used to protect the person of the wearer from the attack of an enemy; or abridgedly, to any part of such habit. Armour, in the aggregate sense of the word, is frequently called barefied by the English writers of the fifteenth and sixteenth centuries, as well as in our ancient statutes.

The materials anciently used for the making of armour were exceedingly multiform; depending in some instances upon the produce of the country in which it was fabricated, but more generally upon the judgment or experience of the inhabitants. Among the more civilized nations, brass, iron, and other metals were preferred; and in the time of Affict magnaissance, even gold was not spared; on the other hand, the Libyans, according to Herodotus (in Polybius), who affiled Xerxes when he invaded Greece, were clothed in tunics of leather, to supply the place of body armour; and the same author (in Clio) affures us, that the military dress of the ancient Perians was composed of leather, and girt about the body with a leathern girdle; and speaking of the Affict Indians (in Polybius), he tells us, that some of them used a species of armour made with wood; others again plaited rushes upon each other like mats, and worked them into the form of a thorax, or breast plate; he also mentions (in Melponene) a people who inhabited the maritime parts
ARMOR.

parts to the well-ward of the Garamantes, who, "when they make war," (says he) "wear the skins of ottrches instead of armour."

The shield, the helmet, and the breast-plate, may claim precedence of every other part of the ancient defensive armour; the first, from the obvious use of such an instrument and the extensiveness of its service; and the other two, from the protection they afforded to the sources of life and function. We must refer to the fac'd writings for the earliest memorias of the ancient military habit; little more, indeed, than the names of the different parts of this habit occur; but with the asseilance of more modern authority, we may be enabled to form some idea of the nature and usefulness of those parts, when applied to the protection of the wearer.

The defensive armour of the Israelites consisted of a shield, a helmet, a military veil, a thorax or breast-plate, and belts of metal, or plated with metal, to gird upon the body, beneath the breast-plate. It does not appear that they wore greaves or military boots for the defence of their legs; though the greaves are mentioned as a part of the armour belonging to Goliath, the giant of Gath (1 Samuel, chap. xvii. ver. 6): they were also worn by other Asiatic nations; and at the siege of Troy, by the Grecians in general. Homer frequently distinguishes his countrymen by the epithet of well-greaved or well-booted Grecians. The greaves attributed by the author of the book of Samuel to Goliath, are called (יָשָׂם), literally, the shins, or hining plates, and were made of brass, resembling probably those upon the legs of the little figure marked A. Plate I. of Armour, which reach from the top of the knee, to the instep, but do not cover the feet; so those of the giant are expressly said to have been placed above his feet. The figure B. upon the same plate, of which we have two views, exhibits the greaves of a thicker constancy, and from the manner in which they are fastened upon the back part of the legs, they appear to have been made with the skins of animals, having the fur upon them. See Greaves.

In the book of Exodus (chap. xxviii. ver. 32. and chap. xxxix. ver. 23.), Moses mentions a garment, which our translators considered as a military one, and accordingly have rendered it an habergeon; that is, a short tunic of mail, fitted close to the neck, without sleeves, and defending something lower than the breast. The sacred penman, speaking of "the robe of the Ephod," says, "there shall be a hole in the top, in the midst thereof, and it shall have a binding of woven work round about the hole of it, as it were the hole of יָשָׂם an habergeon, that it he not rent." But the deduction of the original word, from a root which signifies to make hot, justifies the lexicographers in conceiving it to have been a thick or quilted garment fitted close to the body; and probably it was the same as the vest which Saul put upon David, previously to his arming him with the thorax and girdle (1 Samuel, chap. xvii. ver. 38, 39). This vest, indeed, is distinguished by another name (תַּק), but the objection is of little moment, for a redundancy of names applied to single objects, is common enough to be met with in the Hebrew, and other Asiatic languages. Saul's tunic was evidently placed under the body armour, to prevent the plates of metal from pressing too closely on the skin, and hurting it; and answered precisely the purpose of the doublet, or pointpoint, worn beneath the coat of mail in more modern times (see Doublet); and perhaps, like that, was made without sleeves. Upon the fig. B. Plate I. we find a similar kind of military garment which is worn without the breast-plate, and has only one sleeve occupied by the left arm; this tunic appears to have been fabricated with some rigid material, perhaps of thick leather, and might have answered the double purpose of the pointpoint and the pectoral: the right sleeve, which is full of folds, is evidently made of more pliant stuff than the body garment, and probably belonged to an inner tunic; it was_sublimated for the leather sleeve, because it was less rigid, and did not equally impede the motions requisite for the sword-arm. This curious ancient figure is preserved in the British Museum; it is of Greek workmanship, and was found in the ruins of Herculaneum.

The thorax or breast-plate, called in the Hebrew יָשָׂם or יָשָׁם, derived from a word significative of strength; and usually rendered by our translators, coat of mail; formed another part of the Jewish military habit; it is first mentioned as such, 1 Samuel, chap. xvii. ver. 38 and the same word is used for the body armour of Goliath the Philistine (ibid. ver. 5.), joined with an adjective, expressive of its having been covered with plates of brass in the form of scales. This ordi. totally omitted in our translation, but it is a very important one; and the passage may be rendered, "a thorax or breast-plate of scales of brass." Herodotus (in Polyhistor) informs us, that the Median and Persian folders belonging to the army of Xerxes, had each of them a tunic covered with plates of iron like the scales of a fish, and adorned with sleeves of various colours; but over the tunic, it appears from the historian, they wore an Egyptian pectoral. This kind of scale armour consisted of small plates of metal fastened upon a garment fitted to the body and limbs of the wearer, and contrived to hang over each other like a fish's scales, but in such a manner, as not to prevent the flexibility of the garment, nor obstruct the exertions of the soldier's agility. The form and nature of this equipment are admirably represented by the Sarmanian horsemens, upon the Trojan column; a deft, somewhat similar, was partially adopted in the western parts of Europe by the heroes of the middle ages; but it was soon superseded by the chain, or ring mail, which became universal.

It is highly probable, that the thorax of the Philistines was much longer in proportion to his size than that of Saul, and might cover the greater part, if not the whole of the front of his body; at least one may so judge from its great weight, equal, it is said, to 65 pounds Troy weight; for had the breast-plate of Saul been longer or larger than the ancient pectorals usually were, and proportionate to his size, it would have been an absurdity in him to have attempted to put it upon David, who was a dwarf, and at least a full head and shoulders beneath his stature. Yet we are told, he did put it upon David, and girded his sword upon the tunic beneath it. When David rejected the deft, it is not said he did it because it was too large or too long, or that he appeared ridiculous in it, but because he had not essayed, tried, or been used to such an equipment; for which reason, instead of being useful, it was in incumbrance to him, and obstructed the free use of his arms. See Breast-plate.

If we turn to the little figure A. Plate I. we may meet with something resembing the body armour of Saul, and may easily conceive how it might be applied to a perfon of smaller stature, without the least inconseuency; first, we observe the short flirts of the tunic (above mentioned) with which David was first invested; secondly, the thorax or breast-plate, here apparently one solid plate of metal, worked into the form of a man's breast, and fastened upon the tunic beneath the thorax, are two belts plated with metal, from one of which the sword was usually suspended. If we look to the fac'd text, we shall find that Saul girded David with his own sword upon the tunic; and as he had been previously invested with the thorax, it reasonably follows that...
that the sword was girded "upon" a portion of the tunic which hung belw the thorax, accordingly to the representation of the belts upon the bronze. There is only one girdle mentioned in this passage of the Scripture; and perhaps one was sufficient for David, though Saul, a much taller man, might require two or more. The little figure here engraved perfectly explains the manner in which Abah king of Israel received his death's wound; we are told (1 Kings, chap. xxviii. ver. 31.), that he was smitten by an arrow, "between the joinings of the belts, and between the breadth-plates," that is, in the opening where the lower part of the breadth plate was joined with the uppermost belt or girdle. See Fig. 11.

Xenophon (Cyrop. lib. vi. v., describing the military dress of Abdabates king of Sifica, mentions προσπέρας as part of the Ancient Grecian cuirass, with breadth-plates of metal for the protection of the shoulders (see the fig. are marked C. C. Plate I. of Armour); and also καστελλάρια for the thighs; and τάφθα, or plated strips, attached to the thorax, for the protection of the lower parts of the body. In process of time the thorax was gradually enlarged, and from its appendages originated a complete suit of body armour, such as was introduced by the Grecians, and occasionally used by the Romans. In the middle ages, this custom of cufmg of men in brass or iron was revived, and carried in more modern times to a greater extent than it had been before. A front and a back view of a close-armed man according to the ancient Grecian fashion, is given. Plate I. marked C.C.; the succeeding alterations will appear hereafter, under the article. "Coat of Mail." We may here add, that the λορδς or mail, a species of armour so famous in the ages of chivalry, is by none of modern invention. The thorax of the Phænian giant appear to have been somewhat of this kind, consisting of small plates of metal quilted over each other like the scales of a fish; and if we turn to Plate I. and examine the body of the figure marked D. we shall find strong indication of a chain-mail or net-work of wire rivetted together. If it should be thought, from the smoothness of the bronze upon the left side, that the armour was only made to cover the right, it will be necessary to observe, that this figure in its original plate was supported by another figure, whose right arm, broken away near the elbow, appears beneath its left shoulder, and the part of the arm which is lost covered that portion of the body where we remark the deficiency of the mail; in the present cafe, the left hand of the supporting figure is also seen upon the right hip.

The Egyptian armour of defence for the person consisted of a brazen helmet, and a thorax or coat of linen so plaited and folded as to reflect the point of the enemy's weapon; the whole seems to be formed of rolls of linen or cotton fattened together like the flaxings worn at present by the Tyrolese, or like the hay-bands which a countryman twirls round his legs to serve instead of boots. Fig. 1 and 2. Plate II. were copied from the tombs of the kings of Thebes. Denon's Egypt. Herodotus.

In the earliest defensive armour for the person, the Greeks seem to have used the skins of animals. Horses wore the lion's skin, which, in very ancient sculpture and painting, is tied round his neck by the paws, and again fattened round his loins with a ligature, in such a manner as to form a kind of coat. Jupiter wore the ægis, or goat-skin, for both breadth-plate and shield, to which afterwards was added a cover of metal scales for better defence, and it was further decorated with the Medusa's head to terrify the beholder; the κωκλον, or dog's skin, was the ancient hat and helmet.

The ægis, or dog's skin, is the name generally given to the helmet by the Greeks. Homer frequently uses it, but it is particularly given to that worn by Ulysses in the night expedition. Τρίφθαλοι, τριπχαλοι, is the triple-crested helmet; the crests were principally made of horse-hair. Fig. 4. Plate II. is of the first description. Κυριος, κυριος, a word derived from kyrion, the head, is properly applied to No. 3, and 15. Plate III., and the helmet of 7 and 8. Plate II. because this species of helmet being drawn over the face, at the same time that the form of the head was preferred, the features of the wearer appeared through the front of the helmet.

The Greeks made the thorax, or armour for the body, of brass, linen, or leather. Homer calls his heroes, bra Lars.

The plate-armour for the body consisted of four principal divisions, the breadth-plate, the back-plate, the shoulder-plates and the δίσπερα, or the belt.

The breadth and back plates were formed to resemble the naked body (see Fig. 8. Plate II., and Fig. 14. and Plate III.); these two pieces were fastened together by hasps on each side.

The shoulder-plates were tied to the pans of the breadth, in some instances, which projected like hinges, to allow room for the knot; see Fig. 8. Plate II.

The δίσπερα, or some, comprehended the belt and hanging straps which formed the lowest part of the thorax; see Fig. 3, 7, and 8. Plate II.

Fig. 6 and 7, are coats of mail; in Fig. 6, the shoulder-plates are fastened by rings to a small circle or umbilicus, close to the girdle. Fig. 3. Plate II. has the appearance of linen armour or a coat of mail.

_written was the large round shield, see Fig. 9. Plate III.
The peltis was a small shield, see Fig. 10. Plate III.

were several other shields, but those of the large round, and large oval forms, seem to have been more commonly used.

Fig. 12. Plate III. is one of the Roman heavy-armed soldiers called principes; his armour consists of plates of iron or brass. Fig. 20. Plate III. is one of the Roman velites, or light-armed soldiers, his covering consists of a leather jacket, breeches or femoralia, and sandals. Fig. 15. Face plate, is a Roman general (the emperor Trajan), whose dress is sufficiently explained in the account of Grecian plate armour; the only peculiarity in this figure worthy of observation is, that he wears the military chlamys or cloak.

Fig. 11 and 19. Plate III. are two brazen swords in the British Museum, the latter is sheathed in the same metal; these with the helmets 12 and 16, and the breadth and back plates 14 and 18, were found in the field of Canne, and are believed to have belonged to the Carthaginians.

Fig. 5. Plate II. is a figure in an elegant suit of armour, copied from an antique plate in the collection of Mr. Tafft; but whether it is Etruscan or Roman would be difficult to determine, as it bears but little resemblance to any other ancient work of art that is known.

Although the foregoing observations will throw considerable light on the subject of Greek and Roman armour in general, yet it must be acknowledged that their species is almost infinite; and that all the antique statues, pictures, and gems of armed warriors, of which many hundreds exist, exhibit those differences and peculiarities which must naturally be expected from the variety of times, countries, geniuses of men, and the gradual progress of improvement. In the representations of armour for the body made of leather, we see the imitation of that covered with hair, and made with plaited thongs; in the linen mail, we see thofe doubly and triply plaited, and others worked in oilet holes; in the mail of brass and iron, we see different kinds of scales and chain-works, with
with the various combinations of rings; these differences may be observed in the structure of the armour itself, besides the great variety of animals, foliage, and devices, with which the different specimens are decorated. Concerning the magnificent thorax of Menecus described by Homer in the beginning of the eleventh book of the Iliad, it is said to have had ten stripes of black feel, twelve of gold, and twenty of tin, besides three dragons on each side, which rise up to the neck of the thorax; all this could be only decoration, the general form resembling some one of those represented in Plate II.

Homer and Hecataeus's descriptions of the shields of Achilles and Hercules broke the reader with astonishment, and bewildered his imagination; but we may form a simple and satisfactory conception of both, by remembering they were large circles, decorated with basreliefs of figures, the subjects of which followed in succession until the last reached the front. In an enumeration of the magnificent examples of ancient armour, the trophies of Augustus, formerly called those of Marius, in the capitol, excite our astonishment by the extreme richness and beauty of the helmets, coats of mail, cuirasses, &c., which compose them; and the knowledge of these noble works has been widely communicated by Piranesi's admirable engravings. In concluding this subject, it is to be remarked, that the excavations of Pompei have furnished a great quantity of curious and interesting information on the subject of ancient armour, totally unknown to the moderns before there are in the king of Naples's museum of Parthian, ancient Roman helmets made of brass, with caps to cover the face and guard the eyes; armour for the upper and lower arms, shoulders, elbows, and thighs, of a kind not to be seen in any of the antique statues or bas-reliefs. Some of these pieces are adorned with figures, groups, and other ornaments; but as no drawings are permitted to be made from them, except by those permitted for the publication of the Hellenic antiquities, by the Neapolitan government, we must wait for the next volume of that work to satisfy our curiosity.

In Plate I. the figures C, C, and D, will be sufficiently explained by what has been said concerning the different articles in Plates II. and III. there being nothing particular in these figures except the swan or goose's head which forms the crest of fig. C. The fig. A. and B. wear helmets with visors; the helmet of fig. A. has a high cone and two horns; the shield, which was originally a long square, is broken.

Vegetius observes (De re militari, l. i. c. 10), that the Roman infantry was invariably covered with defensive armour, from the foundation of the city to the reign of the emperor Gratian. The relaxation of discipline, and the dilution of exercise, rendered the soldiers less able and less willing to support the fatigues of the service; they complained of the weight of the armour, which they seldom wore; and they succeeded in obtaining permission for laying aside both their cuirasses and their helmets. The heavy weapons of their ancestors, the short sword and the formidable pilum, which had subdued the world, insensibly dropped from their feeble hands. As the use of the shield was inconsistent with that of the bow, they reluctantly marched into the field. The cavalry of the Goths, the Huns, and the Alani, had felt the benefit and adopted the use of defensive armour; and as they excelled in the management of missile weapons, they easily overwhelmed the naked and trembling legions, whose heads and breasts were exposed without defence, to the arrows of the barbarians. The loss of arms, the destruction of cities, and the dishonour of the Roman name, insectually solicited the succours of Gratian to restore the helmets and cuirasses of the infantry. The encrusted soldiers abandoned their own and the public defence, and their pulchritudinous indolence may be considered as the immediate cause of the downfall of the Roman empire. Gibbon, vol. iii. p. 67, 68.

Thus far we have chiefly considered the defensive Armour of the ancients; and shall now present our readers with a correct sketch of its history as it relates to Britain.

The early Britons, though by no means unequipped with the artifices of war, seem to have had no defensive armour; merely endeavouring to make their appearance dreadful, by tracing wild and horrid images upon the skin; and though they afterwards adopted many of the Roman customs, arts, and habits, they do not seem to have availed themselves of armour, perhaps thinking the freedom of exertion oppressed by such an incumbrance; and it must likewise be remembered, that it was the constant policy of the Romans to deprive all these nations whom they subdued of the use of arms, and to accustom them to a soft, effeminate way of life, that they might have neither ability nor inclination to make off their yoke (See Tac. vit. Agr.). And the Britons perhaps had little inclination to adopt the Roman method of defence, since it could be no honour to wear the military habit of their conquerors. The Saxons, whose chief delight was war, and though among the earliest of the Britons, who arrived in Britain, we hear of nothing like what is now called armour, yet there seems some ground for thinking that it was not entirely unknown to them, since the first species of military habit they afterwards made use of, was the scale armour, similar to that which Xenophon describes among the Sarmatians, from whose neighbourhood it is now believed the ancestors of the Saxons had their origin. In manuscripts of the tenth century, the Saxons soldiers appear habituated in a kind of mail, or scale armour, similar to that worn by the ancient Normans (Strutt's Manners and Customs of the English, vol. i. p. 29), already described. And another kind of mail in use appears to have been composed of strong wires, closely interwoven with each other, like fine wicker, with which the soldiers were cloathed from head to foot (see Pl. IV. fig. 1, 2); others, however, appear to have been cloathed with it in part only, its inflexibility seeming to require that it should be confined to the body, ending at the bottom of the loincloth, and a little below the shoulders (Ibid. vol. i. p. 30). The helmets usually worn with this latter species seem to have been of skins. A manuscript in the Cotton library (Clc. e. 5) universally allowed to be as old as the reign of Canute, represents the Danes soldiers in complete suits of armour (see Pl. IV. fig. 3, 4), from the bends and folds of which they are supposed to have been made of leather, with a diamond crossing of strong wires, interwoven with each other, and made with strong joints in proper places. This armour covers the whole body, legs, and arms, half the left hand being left uncovered, for the betterpurchase in holding either the sword, the spear, or the shield. Their heads are covered with helmets, much superior to those we have mentioned of the Saxons, and still better fashioned to sustain the shock of a violent blow. A projection also crosses the face, to prevent the peron armed from receiving any hurt from the crofs (stroke of an enemy's sword, not unlike what is sometimes seen in the ancient Greek and Roman helmets); and, with a little variation, in the modern helmets of the Mamelukes.

The defensive armour of the Normans was chiefly the coat of fence called Mail, especially for the better foot; others had body armour of iron or leather. The mail was made of small iron links, with joints at a convenient distance; and so contrived as to move upon each other with the greatest facility
facility (see Pl. IV. fig. 5.). With this defensive armour both the horsemen and better foot of foot were covered, the face and left hand excepted. When the mail itself did not compose the guard for the head, they wore helmets, either of iron or brass; the leaders and standard-bearers had generally beavers, composed of thin plates of iron, fastened on the mail before the face; and a few, apparently of a higher rank, wore helmets clumsily composed of the mail.

Mail armour maintained its ground from the Norman invasion to the fifteenth century. Henry IV. is the last of our kings who appears in it on his great seal (Gough's Sep. Mon. I. cxxii.). Many influences, however, of helmets adorned with park, and mail, occurred about the middle of the fourteenth century (Hibd. cxxiv.); at which time Mr. Grose affirms, that plated armour was completely introduced both here and in France. The transition from mail to plate armour is shown (Pl. IV. fig. 6.), from the monument of Thomas Beauchamp, earl of Warwick, 1370. When plated armour came into fashion, it was composed of different pieces for the back, breast, shoulders, arms, hands, thighs, legs, and feet, under the several names of curiies, consisting of a back and breast-piece, foulbroads, frollasts, gourd-braies or avanti-braies, (corruptly, in English, crombraces); garnets, cufHants, with garnetiere; greaves, and iron shoes. Such was the suit of armour in the tower, said to have been made for Henry the VIII., when eighteen years of age (Pl. V. f. i.). Plate armour continued in use for the half a century, when the introduction of firearms, with the improvement of artillery, and a more active mode of warfare, superseded the incumbrance of heavy armours. Of all this furniture of war, scarce any thing is now retained, except the curiies; the gorget or neck-piece, worn by officers, being at present only a badge of honour, and of no defence. The minute changes of our ancient armour may perhaps be traced, by the inquisitive reader, upon sepulchral monuments.

The different articles of which the ancient armour was composed will be found under their respective heads.

**Armad, or Armours, Horse.** The horse belonging to the cavalry, in the army of Cyrus, according to Xenophon (Cyrop. l. vii.), were armed with headpiece-plates, breast-plates, and side-pieces, and the side-pieces served as thigh-pieces to the horsemans. The Sarmatian war-horses were covered with small plates, in imitation of the scales of a fish, after the manner of their riders. And Plutarch informs us, that when the Parthians opposed the younger Cæcilius, they were not only clothed with defensive armour themselves, but that their horses were covered in the same manner. (Φηύτες καταπλακήνων χαλίπην και σιγόντα φάσαλις,) polished to the highest perfection (Plut. Vit. v. iii. p. 280. ed. 1723.). The investing of horses with defensive armour was common enough in the middle ages, and was perhaps introduced into England by the Normans (See Hoveden Annal. p. 446.). It continued to the close of the sixteenth century, when the horse-armour appears to have consisted of a chanfron, or kind of mask, which inclosed the face and ears, with sometimes a spike slanting from the center of the forehead; a criniere, to guard the mane; a poleyn, or breast-plate; and a croipiere, or buttock-piece, that usually descended to the hoofs. (See Pl. V. fig. 2.) After this time the barde, or horse armour, appears to have been neglected; except that in the thirteenth and fourteenth years of Charles the second, the horses of the militia were ordered to be provided with a pectoral and crupper (Grose's Mili. Antiq. ii. 355.). To prevent their hoofs from being fatigued under all their own incumbrances, and the enormous weight of their riders, and to prefer their vigour for the charge, the men at arms in ancient times had commonly hackneys for riding on a march, and did not mount their war horses till they were certain of coming to action; a circumstanc which sometimes occasioned them to be surprized and defeated, before they could mount the chargers and form.

**Armod, or Armours, for the Tilt Yard.** The incident in which the tournaments of ancient times were held, will account for our making the armour of the tilt-yard a separate article. In the middle ages, the common armour seems to have been used, only sumptuously covered with drapery, both as to man and horse, and occasionally charged with the armorial bearings of the combatants. The hilde and furniture were often times of goldsmiths' work, and the emblems richly embroidered. Toward the reign of Henry the Eighth, the drapery was in a great measure thrown aside; and the tails of the combatants was usually displayed in the elegance and lightness of their tilting armour. Under Elizabeth, it seems to have been extravagantly ornamented, and, in many cases, materially to have differed from the military habit of defence. Mr. Pennant, in the history of London, has engraved the portrait of Robert Dudley, earl of Leicester, clad for the tilt-yard; from which it appears very plainly, that the tilt and bow were chiefly confined. (See Pl. V. fig. 3.) Mr. Strutt too, in his Manners and Customs of the English, has engraved a portrait of Prince Henry, child of James the First, in a coat of half-titting-habit, worn when the pike was executed for foot (Pl. IV. fig. 4.). The gallantry of going to the battle naked, without any defensive armour, prevailed so far, that the French, during the reign of Louis XIV. were obliged to be continually issuing ordinances to restrain it; in consequence of which, the general officers, and those of the cavalry, were obliged to refuse their curiis, which yet has been but ill observed.

And now we conclude the article of armour; but not without informing our readers, that the first part of it was furnished by a hand of which death has now deprived us. The person we allude to was Mr. Joseph Strutt, of whose ability as an antiquary the world has been long convinced.

**Armour, Cuff, or embrocure of any person or family, with its several charges, and other furniture; as mantling, crest, supporters, motto, &c.** Thus we say, a gentleman of coat-armour, meaning one who bears arms. See Arms.  

**Armoric, or Armorial, in Botany.** See Cochlearia.  

**Armoric, in Entomology.** A species of Crenosoma, described in the Linnaean Fauna Suecica, by Fabricius, Herbit, Gwelin, and other Dutch and English authors. It is very glossy; blue-black above; beneath black. Degener names it crenosoma plantagoins, from its being found chiefly on the plantain. Cochlearia armoricana ranunculo aquatili, flammula.  

**Armorial, something that relates to arms, or heraldry.** In this sense we say an armorial figure, armorial bearing, armorial ensign, the armorial lily of France, armorial lion or leopard of England, &c.  

**Armorial is also a title given to several books, which contain the arms of a number of persons of quality.** In this sense we meet with the French armorial, the Spanish armorial, &c.  

**Armoric, or Armoric, something that belongs to the province of Britagne, or Brittany, in France. See Armoric.**  

**Armoric, absolutely used, denotes the language in use among the inhabitants of Britany.** The French usually call this language Bas-breton; compounded, says M. Menage, of ar, upon, and mor, sea.  

The Armoric is a dialect of the Welsh, and filter of the Cornish language.
The inhabitants of Brittany, of Cornwall, and of Wales, formerly understood each other's speech; though considerable diversities have crept in between these languages, since their separation from each other.

The inhabitants of Brittany, Mr. Lluid observes, by their intercourse with the French, have much altered their ancient orthography; besides that there are several words in the Armoric which have no affinity with the Welsh; and that both the Armoric and Cornish retain several ancient words and phrases which are lost in the Welsh. Julian Manoir, a Jefuit, has published an Armoric grammar and vocabulary, in French, which has been translated into English by Mr. Williams, and published with notes by Mr. Lluid. In Archæol. It. 3. and 4. p. 180, &c. Before him, Yvon Quilleré published an Armoric vocabulary at Paris, 1521.

Toland has given a catalogue of several Armoric words, which prove to be Irish; also a vocabulary Armoric and Irish.

ARMORICA, in Ancient Geography, the name given by the Romans, after the conquest of Gaul, to that portion of its maritime countries that is situated in the north-west corner between the rivers Seine, the Loire, and the Atlantic. The name Armorica was anciently given to the whole northern and western coast of Gaul, from the Pyrenées to the Rhine; under which name it was known in Caesar's time. Cæf. De Bell. Gall. lib. vii. c. 14. During the first three centuries of the Christian era, this remote corner was with little interruption in tranquil subjection to the refilible dominion of Rome. But its submission was the exaction of force, not the acquiescence of content. The Armoricanians were impatient of slavery, and when the northern hordes shook the tottering fabric of the western empire, they were eager to revolt. They expelled the Roman magistrates who acted under the authority of the usurper Constantine; and a free government was established among a people who had so long been subject to the arbitrary will of a master. The independence of Armorica was confirmed by Honorius himself; but after the northern conquerors of Gaul had successively fallen, the maritime provinces were restored to the empire. Employed on this portion of his glory, Gibbon (Hist. vol. v. p. 325.) in a few lines marks the character of a people “reflects under con- traint, but unfit for liberty.” Yet their obedience was imperfect and precarious; the vain, confoantal, rebellious disposition of the people, was incompatible either with freedom or turitude; and Armorica, though it could not long maintain the form of a republic, was agitated by frequent and destructive revolts. In the end of the fifth century, when Clovis established his Franks in Gaul, Armorica, after a long and obstinate opposition, at length capitulated on honourable terms, by which the people were admitted to be a part of the newly-formed kingdom of France. The Britons, when finally subdued by the Saxons, and expelled from their native land, sought and found refuge in Armorica, and coalescing with the natives, became a powerful though vaffal state. This territory, says Warton (Hist. Eng. Poet. vol. i. diff. 1.), was, as it were, newly peopled in the fourth century, by a colony or army of the Welsh, who migrated thither under the conduct of Maximus, a Roman general in Britain, and Canus, lord of Meiriadoc or Owain. Milton more than once alludes to this Welsh colony:

"Et tandem Armoricae Britonum sub leges colons," Manuf. And, in the “Paradise Lost,” (b. i. 579.) he mentions in Vol. II.

Differimnately the knights of Wales and Armorica, as the customary retinue of king Arthur:

"—What renown'd In fable or romance, of Uther's son Begin with British and Armoric knights.”

This migration of the Welsh into Armorica, which had thrown off its dependence on the Romans during the dis- fractions of the empire, seems to have occasioned a close connection between the two countries for many centuries. From this connection of Wales with Armorica, the scene of ancient romances, we are able to deduce the reason why Wales was so constantly made the theatre of the old British chivalry, and also why so many of the favourite fictions which occur in the early French romances, should also literally be found in the tales and chronicles of the elder Welsh bards. It was owing to the perpetual communication kept up between the Welsh and the people of Armorica, who abounded in these fictions, and who naturally took occasion to interweave them into the history of their friends and allies.

Armorica, or Brittany, was not annexed to the crown of France till the close of the fifteenth century, and the inhabitants retained various privileges and immunities, which continued in force until the revolutionary establishment of departments put an end to all local or provincial privileges, and amalgamated all former diversities into one mass.

From the settlement of the refuge Britons, Armorica received the name of Lesser Britain or Brittany; and was governed by dukes. See BRITAIN, and Gaul.

ARMORIST, a person skilled in the knowledge of arms.

ARMORUM CONCUSIO, in Antiquity, the clashing of arms, practiced by the Romans before an engagement, designed for striking a panic into their enemies. It always followed the Classicum, and barratus.

ARMORY, or Armoury, a flour-house of arms, or a place where military habiliments are kept to be ready for use. There are armories in the Tower, and in all arsenals, citadels, castles, &c. Imbezzling or destroying the king's armour or warlike stores, is declared to be felony without benefit of clergy, by Stat. 31 Eliz. c. 4. 22 Car. II. c. 5. 12 Geo. III. c. 24.

Armory, is also used for a branch of Heraldry, being the knowledge of coat-armors, as to their blazons and various intendments.

ARMOSATA, or AROMOSATA, in Ancient Geography, a very considerable city of Armenia, and next in importance to Artaxata; situated between the Stygis and the Ephemares. It took its name from the river Aramissus of Pryn, or Aramactus of Tacitus, on which it was built. It was by turns taken and sacked by the Huns, Arabs, and other neighbour- ing nations.

ARMOSAT, in Geography, a small island in the sea of Gacogny, on the coast of Santonge.

ARMOSA, a promontory of Asia, in Carmania, near a place called Armastia, at the entrance of the Persian Gulf.

ARMOT, in Geography, a small island in the sea of Gacogny, on the coast of Santonge.

ARMOURER, a maker of arms, or armour. The profession of an armourer, which was formerly an office of great importance in this kingdom, is now totally extinct.

Therefore the Roman armours were disposed in certain places in the empire, it being forbid, either to sell, to buy, or make arms elsewhere. They were exempt from all offices and taxes, and received a salary from the public.

When once they had taken that employment on themselves, neither they nor their children were allowed to quit it. To prevent this, they had a kind of note, or stigma, impressed on the arm, whereby they might be known.
known. If any of them fled, or deserted their war, the
Irish were allowed to answer for him; on account of which,
the effects of such as died without a legal tenet went to the
coffin.

There were fifteen armament opt or repositories of arms in
the Eastern empire, placed near the frontiers; and mention
in the Western. Titus L. S. Ant.

Armament of a fobb, a source whose office is to take care
that the arms be in a condition fit for service.

ARM, Arm. A general word, include all kinds of
weapans, whether for offence or defence. Nic. de
Derive the word from the Latin phrase, quod hujus armas,
because: they cover the shoulders or bulls; but Varro derives
arms, de armis, from quod accessit. It is supposed, that
the first artificial arms were of wood, and were employed
only against bulls; and that Belus, the son of Nimrod, was
the first that waged war; whence, according to some, came
the appellation bellum. Dioscorus Siculus takes Belus to be
the same with Mars, who first trained soldiers up to Battle.

Lucretius is minute on this subject:

"Arma antiqua manu, ingens dentique fure
Et lanceis, & steme lacerum fragmam, rami.
Et laminae: atque ignes polluant sunt cognitum primum.
Poderam ferri, vis et antiqua repertus,
Et prior axis erat quam ferri cognitum usus."

The most ancient and universal arms of offence seem to
have been bows and arrows; to which succeeded the fagg.
See Gec. 22. 23. 27. 3. Job. xii. 10. Hebd. expressly
tells us, that in the early ages, the arms and instruments of
the primitive heroes were covered entirely of bratf.
The arms of the early Greeks were heavy, and principally
defensive, consisting of an helmet, a breast-plate, and greaves,
all of brass: with a shield, commonly of bull’s hide, but
often strengthened with the metal just mentioned; the shield
being a superadded protection for every part. The Locrans,
however, under Oilean Ajax, were all light-armed; bows
were their principal weapons, and they never engaged in

The infantry which composed the Roman legions were
of three kinds, the hastati, the principes, and the triarii.
Their arms, both offensive and defensive, were in a great
measure the same. They wore an head-piece of bratf or
iron, coming down to the shoulders, but leaving the face
uncovered; a coat of mail, generally made of leather, cou-
vered with small plates of iron, in the form of leaves, or iron
rings twisted within each other; greaves for the legs, or
shin-guards only on the right leg; an oblong shield, with an
iron buss; a sword; and two long javelins. Adams Rom.
Antig. 357. There was also a fourth kind of troops, called
milites, from their swiftness and agility; they were first insti-
tuted in the second Punic war. They were aligned no
regular post, but fought in scattered parties, whenever occa-
sion might require, usually before the lines. They were
equipped with bows, slings, and javelins, a small round shield,
a sword, and a helmet of the skin of some wild animal. (Hist.
358.) What contributed most to render the Romans masters
of the world was, that having successively ware against all
nations, they constantly renounced their own methods, arms,
&c, whenever they met with better. Thus Romulus, during
his war with the Sabines, a bold and warlike nation, adopted
their broad-buckler in lieu of the small Argian buckler,
which he had used till that time.

The arms in use among the ancient Britons were light,
and unfit to withstand the Romans in a close encounter; though in light skirmishes, prudently made, the Britons
generally gained considerable advantage (Strutt, Maners
and Customs, vol. i. p. 3f.). Their young men were not only
trained to the use of arms in early youth, but continued in
the exercise of them to the very close of age; and were
always ready to appear, when called by their leaders into
actual service. Their very directions and moral maxims, were
of a martial and a manly cast; and were javelins they used in
hunting, was a principal weapon in the field of war. They
had neither helmets, broad plates, nor defensive armours,
but a light shield. Cicero tells us, they had a dart or javelin,
which they threw from their war chariots to annoy the
enemy; with a short spear for the infantry, that had a ball
at the other end filled with brass that they shuck with
great violence before the battle, in hope to intimidate the
enemy; and again when they engaged the cavalry: to the
upper end of it a thong was fixed, that when used as a
middle weapon, it might be recovered, and again used in
the close encounter. They had also long and broad swords,
without points, designed only for cutting, which were flung
by a chain over the left shoulder; and occasionally a short
disk fixed in their girdles. The feythes that were sometimes
falled to their chariot-wheels, may perhaps be ranked
among their offensive arms.

The ancestors of the Saxons, in their native woods,
were told, transacted no business, public or private,
without being completely armed (Pac. De Mith. Germ.
§ xii.); and the custom of wearing swords on all occasions
prevailed in every country where the Germans took
possession.

The early Saxons, previous to their arrival in Britain,
beside the buckler and the dagger, used a sword bent in
the manner of a yeath; but their descendants from changed
it for one that was long, straight, and broad, double-edged,
and pointed.

The Saxon infantry were not all furnished with the same
defensive weapons; some being provided with spears, others
with axes, and not a few with clubs, bulke swords, which
were common to them all. Their shields were generally of
the middle size, for the most part oval, always convex, and
having a sharp spike protruding from the center; with which,
while they defended themselves, they annoyed their enemies.
They fought with their swords and shields, much like the
gladiators of the Romans; and in the earliest times had
nothing like defensive armours, which they seem to have
adopted about the eighth or ninth century. Some alteration
in our national arms probably took place on the
arrival of the Danes. Their swords were both longer and
larger than the Saxon swords; the blade had a right differ-
cence; and they appear to have brought the battle-axe into
more general use. Verdugan enumerates the crofs-bow as a
Saxon weapon, but had no good authority for the aflertion;
as it neither appears in any ancient history or delineation,
that the Saxons ever were acquainted with it. And though
they used the common bow when following the chase, they
never brought it to the field of action. Their cavalry were
armed with greater uniformity than they who fought on
foot; carrying in their right hands long spears, and at their
left sides a sword. They were also better provided with
defensive armour.

The Saxon and the Dafih troops were chiefly infantry;
and though not entirely for the introduction, we are cer-
tainly indebted to the Normans for the more general use of
cavalry. In regard to defensive arms among the Norm-
ans, both horse and foot folders were differently clad;
three to support the for battle, and some the lighter skirm-
ishes (Strutt, Man. and Customs, vol. i. p. 56.). The
offensive arms the cavalry used were long spears or lances,
swords like thiefs of the Saxons, and short darts or daggers.

Vol. I.
The invention of gunpowder, which had already been used by the Chinese in the thirteenth century, was brought to Europe by the Turks and the Arabs in the sixteenth century. In 1544, the French army was equipped with firearms, which were used in the battle of Parnawa and later in the battle of Guineau. These firearms included arquebuses, muskets, and crossbows. The use of firearms revolutionized warfare and led to the decline of the traditional infantry. The introduction of gunpowder also led to the development of new weapons, such as the cannon and the howitzer. The use of these new weapons had a significant impact on the outcome of battles and the strategies employed by armies.

This text does not provide any information about the number of people who used firearms. However, it is clear that the use of firearms was widespread in Europe, and their effectiveness is widely acknowledged.

The improvements in warfare and the development of new weapons had a significant impact on society and the economy. The use of firearms led to the rise of a new class of soldiers, the musketeers, who were well paid and highly skilled. The use of firearms also led to the development of new industries, such as the manufacture of gunpowder and firearms.

The use of firearms was also a significant factor in the history of England. The English army was one of the first to use firearms extensively, and this gave them a significant advantage over their opponents. The use of firearms also led to the development of new tactics, such as the use of fortifications and the use of artillery.

The improvements in warfare and the development of new weapons had a significant impact on the economy of Europe. The use of firearms led to the rise of a new class of soldiers, the musketeers, who were well paid and highly skilled. The use of firearms also led to the development of new industries, such as the manufacture of gunpowder and firearms.

The use of firearms was also a significant factor in the history of England. The English army was one of the first to use firearms extensively, and this gave them a significant advantage over their opponents. The use of firearms also led to the development of new tactics, such as the use of fortifications and the use of artillery.

The improvements in warfare and the development of new weapons had a significant impact on the economy of Europe. The use of firearms led to the rise of a new class of soldiers, the musketeers, who were well paid and highly skilled. The use of firearms also led to the development of new industries, such as the manufacture of gunpowder and firearms.

The use of firearms was also a significant factor in the history of England. The English army was one of the first to use firearms extensively, and this gave them a significant advantage over their opponents. The use of firearms also led to the development of new tactics, such as the use of fortifications and the use of artillery.

The improvements in warfare and the development of new weapons had a significant impact on the economy of Europe. The use of firearms led to the rise of a new class of soldiers, the musketeers, who were well paid and highly skilled. The use of firearms also led to the development of new industries, such as the manufacture of gunpowder and firearms.

The use of firearms was also a significant factor in the history of England. The English army was one of the first to use firearms extensively, and this gave them a significant advantage over their opponents. The use of firearms also led to the development of new tactics, such as the use of fortifications and the use of artillery.
ARMS.

the duke of Parma, who studied and conducted war as a science to which mathematical, geographical, and even historical aid was indispensable. The infantry of Philip the second and third spread terror over Europe.

In the middle ages, and even so late as the sixteenth century, the chief national weapon of the Scots was the spear, seventeen feet in length. It was undoubtedly formidable, when projected by a deadly and complete battalion. But the Scottish troops were deficient in point of discipline. In pitched battles, they might have equal bravery, but seldom succeeded against the disciplined archers.

By the ancient laws of England every man was obliged to bear arms, except the judges and clergy. Under Henry VIII, it was expressly enjoined on all persons to be regularly instructed, even from their tender years, in the exercise of the arms then in use; viz. the long bow and arrows, and to be provided with a certain number of them. 33 Hen. 8.

Arms, Arma, in Lat. are extended to any thing which a man takes in his hand in a war, to use it or strike another.—So Crompton—Armarum appellatio non utilique facta, & gladiis, & gladiis & lapis. See VI. & arts.

By the common law, it is an offence for persons to go or ride armed with dangerous weapons: but gentlemen may wear common armour, according to their quality, &c. &c. 1 Int. This is also declared by flat. 1 W. and M. fl. 1. c. 2. The king may prohibit force of arms, and punish offenders according to law; and herein every subject is bound to be aiding, flat. 7 Edw. I. None shall come with force and arms before the king's justices, nor ride armed in array of the people, on pain to forfeit their armour, and to suffer imprisonment, &c. 2 Ed. III. c. 5.

The importation of arms and ammunition is prohibited, by 1 Jac. II. c. 8. and by 1 W. and M. fl. 2. c. 2. Protestant subjects may have arms for their defence. So likewise, arms, &c. shipped after prohibition, are forfeited by 29 Geo. II. c. 16. sect. 2.

It is one branch of the royal prerogative vested in his majesty by statutes Car. II. c. 4. and 29 Geo. II. c. 16. to prohibit the exportation of arms and ammunition out of the kingdom, under severe penalties.

Arms of offence and use are amongst us at present are, the sword, pistol, musket, bayonet, pike, &c. the arms of the Highlanders are, the broad-sword, target, poniard, and whiny or dirk, &c.

There are several acts of parliament for disarming the Highlanders: see 1 Geo. I. c. 54. 11 Geo. I. c. 26. 19 Geo. III. c. 39. 21 Geo. III. c. 34. 26 Geo. II. c. 22 and 29.

Arms of Defence. See Armor and Arms.

Arms, Fire, are those charged with powder and ball; such are cannon, mortars, and other ordnance; muskets, carbines, pistols, and even bombs, granadoes, canon, &c. Fire-arms discharged by hand were first called hand-cannons, hand-culverines, and hand-guns; they afterwards acquired the appellations of hawk-buts, arquebuses, muskets, and culverines; and, lastly, their present name of fire-locks.

In the history of the Royal Academy for the year 1767, we have an account of some experiments made with fire-arms differently loaded, by M. Calini. Among other things, he observes, that by loading the piece with a ball which is somewhat less than the calibre, and only having a little gunpowder below the ball, and a good deal above it, it will yield a vehement noise, but have no sensible effect or impulse on the ball. This he takes to have been all the secret of those people who pretended to fell the art of rendering one's self invulnerable, or shot-proof.

Arms, Bills of, or Bill-lets, denote a kind of tents in the shape of a cone, where the company's arms are lodged in the field. They are generally painted with the colour of the facing of the regiment, and the king's arms in front.

Arms, Pali of, was a kind of combat in use among the ancient cavaliers. See PASS.

Arms, Stand of, signifies a musket, a bayonet, a sword, &c. &c. &c. and cartridge-box.

Arms of Parade, or Courty, were those used in the ancient jilt, and tournament; which were commonly unfixed lance, swords without edge or point, wooden swords and even canes.

Arms, 16, a beat of the drum, is a signal to summon the soldiers to their alarm-polls on some sudden occasion.

Arms denote the natural weapons, or parts of defence of beasts, as claws, teeth, tusks, of elephants, beaks of birds, &c. &c. and also the defensive weapons of plants, as thorns, prickles, &c. Arms are also used figuratively for the profession of a folkt. Thus we say, he was bred to arms.—See Preference, Law, Place, Suspension of Arms.

Arms, or Armorial Ensigns, in Heraldry, are marks or badges of dignity and honour usually composed of certain figures and colours, given or authorized by sovereigns, and borne on banners, shields, &c. &c. &c. for the distinction of persons, families, and states.

Concerning the origin and use of arms, or armorial ensigns, many authors, who have thought that comparative antiquity must necessarily decide on the merit of their favourite science, have traced it far beyond the scope of chronology, to the Egyptians, and "the land of darkness." Diodorus Siculus is cited as an authority, asserting, that armorial distinctions were first adopted by Antius and Macedo, sons of Olins, under the emblems of a wolf and a dog. To the Greeks they are likewise attributed, and if the poetical delineations of the "shields" of heroes described by Homer, Achilles, and Virgil, be not inapplicable to the devices of the middle centuries, with apparent propriety; these, however, were not anlogues, being the personal furniture of the chief, only embellished according to the fancy of the artist, and allusive to some exploit past or predicted, but neither hereditary nor gentilitial. Some deduce the introduction of arms from the ancient mythology, and consider the hieroglyphics and emblems of Greece and Rome impressed on the reverses of their medals, as the indubitable prototypes of modern armories. It has likewise been supposed, that arms were attributed to individuals, and confirmed to them by the Romans; and it is further urged, that in their code of laws under Augustus, and in that select by Justinian, the "jus imaginum," unequivocally referred to those rights, this distinction of families, or the right of having the images and statues of their ancestors, an honour which was allowed to those Romans only whose ancestors had borne some office in the state, as censor, praetor, consul, &c. He who had the privilege of using the images or statues of his ancestors, was termed "nobilis," he to whom it was permitted to have his own statue or image only, was called "novus," and the person who was not allowed to have the image or statue either of his ancestors or of himself, paid under the appellation of "ignobilis," as do the common people amongst us who have no right to armorial ensigns. These images or statues were made either of wood, brass, marble, or wax, painted the better to represent the persons intended, and were dressed out according to the quality of the persons they represented, being adorned with the robes of the offices they had borne, and the marks of their magistracy. These images were usually placed by the Romans in cabinets, which
which flood in the court before the entrance into their homes; and on solemn days were usually exposed to view, not only that the people might be reminded of the nobility and honours of the family to whom they belonged, but also to excite the piousness of the populace to imitate the virtues of their ancestors. When any of the family died, the statues and images were not only thus exposed, but in the tombs were placed on beds, and carried before the corpse, as emblems of the nobility of the dead. Thus, at the funeral of Marcellus, Augustus ordered five hundred beds of images to be carried before the corpse; and no less than six thousand are reported to have attended that of Sylla the dictator. The right of keeping and exhibiting the images and statues being hereditary, and allowed proofs and evidences of nobility and ancient descent, they partook to such an extent of the nature of coat-armour, as in some measure to countenance a probability that the latter were contrived and introduced in lieu of the former. The jus nobilitatis of the moderns, say the advocates for this figuration, is nothing else but the jus imaginum amongst the Romans; for as they placed the images and statues before the porches and gates of their houses, so our nobility and gentry used to have their banners, helmets, and other armorious placed in some conspicuous parts of their dwellings, and their armorial ensigns, either cut in stone, or painted on ceilings, over their gates, not only as monuments of their nobility and ancient descent, but with intent thereby to encourage the beholders to imitate the virtues and bravery of their ancestors. The analogy between this and the subsequent use of armorial ensigns, extends only to the single circumstance of hereditary appropriation. Acquired as they were by actual services to the state, so they were preferred to the descendants of illustrious characters by the function of the laws, and thus became a certain species of right and property, which at once endeared them to the populace, and rendered them objects of honourable ambition. Besides, the pride of the Romans was remarkable, and on every occasion carried to the highest pitch; inomuch that, in case any particular hereditary tokens or marks designed for distinguishing one family from another, and established by public authority, had been used by them, they never would have suffered such pleasing testimonies of family honour and aggravendance to have sunk into oblivion; but, on the contrary, would have endeavoured to perpetuate the memory of them, by representing some of the honourable badges in the paintings and sculpture of their villas, funereal monuments, triumphant arches, columns, temples, or other edifices: whereas no such have ever been hitherto discovered: consequently the difference between the jus imaginum of the Romans, and the bearing of coat-armours of later times, is wide and essential. Armorial ensigns are military, but the jus imaginum appears to have been a civil institution, established to do honour to such particular families only. Much honour must be attributed to those ensigns which were first adopted by the principes bands of German soldiers; for their chiefs having the power of investing them, considered them not solely with regard to gentilitial distinction, but as personal appendages; and this in the very early centuries. When the Saxons, after their invasion of this kingdom, ratified the partitions of the whole territory, and established the heptarchy, to each principality its peculiar badge was assigned, and borne upon the banners; and it appears, that whenever any of the provincial kings became monarchs of the island, they retained the gentilitial bearing, as personal, not adopting any new device. This, however, applies only to a period prior to 959, when Edgar, surnamed the Peaceable, added to the "Croix Flore" four martlets; in 1042, five were used by Edward the Confessor, which remains the general armorial bearing of the Saxon nation.

Whether armorial ensigns were used by the Merovingian kings whose race became extinct in the person of Childeric the Third in 754, or not till the close of the ninth and commencement of the tenth centuries, who first determined? The fairest conjecture seems to be, that the tournaments held with such magnificence towards the end of the tenth century, under the auspices of Hugh Capet, were introductory of the more general usage and assumption of arms. No past-factory account is preserved whether, after the personal use of arms, they were first painted or embroidered on rich stuffs in the form of pennons, or emmellled on shields. The more probable conjecture inclines to the former mode. The victorious William, who had been educated in the courts of Robert and Philip the First, successors of Hugh Capet, had imbibed an early taste for the martial exercises of which France was then the most magnificent and frequented theatre. After his successful enterprise, and establishment on the throne of England, together with his desire of immortalising his followers, he encouraged, but under great restrictions, the individual bearing of arms. About the year 1189, it was usual to have a small field fastened to a belt, upon which arms were painted; and it is in proof of this custom obtaining in England prior to Richard the First, upon whose great feast the shield is charged with three lions païant, or, as some term them, leopards. The more general use of arms, and that which affords the best information concerning them, was the custom of engraving them on seals for the purpose of ratifying deeds and charters. This mode is said to be introduced by Edward the Confessor from Normandy, where he was educated, and to have been confirmed by him to the royal use. In the year 1095, being the commencement of the crosfades, a period the most intermixing in the history of heraldry now opens, when all Christendom united in one common and infatuated cause; when even rival princes engaged in the same enterprise, not merely because sanctioned by the church, but rather as being highly delightful to the romantic and warlike genius of that age. The great council of Clermont had determined in that year to recover the holy city from the Saracens, by enlisting the church under the consecrated banner from which they were to derive supernatural assistance. In the following year this immense army began their expedition; and, as a flattering badge, every private soldier wove a crofs of red stuff sewed to his surcoat, from which circumstance these achievements were called "crosfades." The hereditary use of arms, says Camden, was not established till the reign of Henry III. The last arms of Cheltenham, the Quineys, Earl of Winchelsea; and the Laces, Earl of Lincoln; varied still the father from the son. The Veres and Berkley altered their paternal coats, "when they had taken up the crofs," the phrase of that day for engaging in the holy wars.

The application of arms to the coin of this realm is of great antiquity; the scutum being paid with ducats, a silver coin upon which a shield was impressed (see Cork). The first inscriptions of sculpture of arms upon the effigies placed on sepulchral monuments remain in the Temple Church, London, of the date 1144. The nobility and principal gentry not only continued their armorial ensigns on their shields, but in order to be better known and distinguished, had them depicted on the Breast and backs of the tombs and sarcophagi which they wore over their armour, as also on the caparisons of their horses. This fashion of surcoats spread over their coats of mail, and hanging down
to their heels, appears by the figure of Gildas, earl of Richmond, who died in 1189, and is reproduced on that
coat of arms in the pavement by William Venables, earl of Pembroke, in Westminster abbey, who died in 1176, has the finest to charged with aromatic dyes.
The emblem of embalming arms upon coffins of state
prevailed from the fourteenth century: they were likewise introduced into coffins and private houses, as well as churches,
painted in compartments upon the walls, or flamed in gilds, and inserted in the windows of the chief rooms, and
painted in the choicest style on velvet rolls. Armorial
bearings upon plate were in use as early as the beginning
of the sixteenth century, as appears by an inventory of
the crown jewels taken in 1544. In the reign of Richard
II. the armorial device was no longer confined to the
gorgeous array of warriors completely armed, but embroidered
and embroidered on the common habits of those who
attended the tumulus court. Upon the mantle, the fur
coat, and the julk-at-corps or bodice, the charge and cog-
nernance of the wearer were profuselylettured, and done
replendent in silver and beaten gold. The wardrobe of a
noblesman became no small part of his wealth, the arming of
which was in the end, the same as the goldsmith's craft. Even
the ladies were as well versed in mantling their hereditary
achievements, as in the service of oratory: the tumulus
vails and mantles, which they were employed in embroidery,
were made in the form of ecclesiastics joined together,
and were of velvet, fanning, and taberne, according to the
rank of the person, and were worn as the court drest till
the commencement of the sixteenth century; since which
they have been used only as the state drest of the officers
of arms; from this custom we have the modern phrase
"coat arms, or coats of arms."

The ecclesiocran was now no longer singly charged with the
hereditary bearing, but admitted those of the wife
by diminution or impalement, and of heirs general by quarter-
ing. The first that bore arms quarterly in England appears
to be John Hasting, second earl of Pembroke, in 1258.
Crests and cognizances were multiplied, and a mode of de-
corating the armories introduced, that of placing the shield
of arms between two animals as supporters. Arms were first
borne on a shield by king Richard I., on the escutcheons for
harbour by Edward I., and the custom of broadening them
on the julk-at-corps, or bodice, by Richard II.

Originally, none but the nobility had a right of bearing
arms; but king Charles V. by his charter in 1372, permitted the Parliams "to bear arms," from whose example the more eminent citizens of other places
did the like. The use of arms became more chiefly
connected with the study of genealogy: and when the
mode of including in the same ecclesiocran the armorial bear-
ing of every heir female, with whom an intermarriage had
been made, was universally followed, they were more
necessary to each other. By the fully quartered ecclesiocran,
a comprehensive scheme of connexions presented at one view,
and a general idea communicated of the comparative claims
of each family in the scale of hereditary dignity. To
determine the right of introducing the arms of others into
the ecclesiocran, and to distribute them when altered in their
proper gradation, opened a new field of professional ability,
which required the most diligent application to the laws
and confirmed practice of arms. No heraldic, or elemen-
tary treatise, by which the science could have been taught,
was made public till the avenue to universal information was
laid open by the typographic art. It was confined to the
heralds, or painter-keepers whom they employed, who
confidered it as the mystery of their trade, and therefore
not to be divulged. Henry V. seems to have held a just
opinion of the necessity of ascertaining those who were
legally appointed to armorial distinctions, and of prohibiting
an undue annexation of them: in 1415, the 7th of his
reign, he issued an edict directed to the sheriff of each
county, to summon all persons bearing arms to prove and
establish their right to them. Many claims, examined in
consequence of this inquiry, were referred to heralds, as
commissioners; but the first regular chapter held by them in
a collegiate capacity was at the see of Rouen, on the
5th Jan. 1420. King Richard III. by his letters patent,
dated 2d March 1483, the first of his reign, directs the
incorporation of heralds, and established the "College of
Arms" on its present foundation, investing them with full
powers of summoning those that assumed the arms of others
to appear in the earl marshals court, and of granting elec-
theosis to new families. This privilege multiplied the
figures of arms, and varied the differences. Forms of
every description in the infancy of the graphic art, with-
out any exact resemblance, it may judge from the spec-
ine piece as remaining, were universally introduced. The
arms were exhibited in the representation of the different
parts of it, and to Charles II. the introduction of gryphons,
mermaids, wyverns, and harpies. Every invention of art, whether military or mechanic, has been at one time or other a badge of hereditary

Arms at present follow the nature of titles, which bring
the several marks for distinguishing families and kindred,
as names are of persons and individuals; they also shew who
were the founders of towns, cities, churches, ancient ab-
ways, and colleges, by having their arms affixed to them;
and it is well known, during a war, that a ship taken car-
rying the armorial emblems of an enemy, is declared a prize,
though belonging to a power at amity. Arms are also
variously distinguished by the heralds under the following
heads.

Arms of Dominion, are those which belong to sovereign
princes and commonwealths in right of their sovereignty.
In regard to such ensigns, it may be observed, that if the
person ascending the throne by legal succession be a so-
vereign, he marshals his arms with those of the dominion to
which he succeeds. If he who ascends the throne by legal
succession, be of the quality of a nobleman, he then uses all
his own arms, and only those of the dominion to which
he succeeds. Those who ascends a throne by election, carry
their arms on an ecclesiocran placed on the center of the
arms of the dominion to which they are elected. William,
prince of Orange, placed those of Nassau over those of
England and Scotland, as an elective king.

Arms of Patronage, are part of the arms of these lords of
whom the persons bearing them held in fee, either added to
the paternal arms of the person assuming such addition,
or borne as feudal arms in order to show the dependence of
the parties bearing them: thus, as the earls of Chelten-
ham bore baron, many gentlemen of the county bore baron
also. The late earls of Warwick bore chequy or & blue, or chevron
ermine, and therefore many gentlemen of Warwickshire bore
chequy.

Arms, Feudal, are those annexed to dignified fees, as
dukedoms, marquises, earldoms, &c. and which arms the
possessor of these fees carry in order to show their dignities;
the creation was denoted by the bearing the ensigns of their
dominions. In England there have been but few instances
of feudal bearings, but there are many in Spain and in Scott-
lanc.
ARMS of Conquest, are armaments granted by the sovereignty of part of his arms; thus the royal armament in the arms of the duke of Rutland, were granted by Henry the Eighth.

ARMS of Community, are those of boroughs, cities, universitites, and other bodies corporate. (See Impalement.)

ARMS, Civil, or as the French call them, "armes par-antes." (or generic arms, alluding to names, a tribute for the vet, three berasings for Herring, &c. These, though some ancient precedents exist, are not common till the commencement of the seventeenth century, when they prevailed under the auspices of James I.

ARMS Paternal and Hereditary, are such as belong to a particular family, and which no other has a right to assume.

ARMS of Succession, are those taken by inheriting certain fiefs or manors, either by will, entail, or donation; as we find that Hubertus de Burgo, earl of Kent, who bore for his arms "gules seven lozenges vaiz," granted the manor of Elmore in the county of Gloucester, in 1745, to Anselm De Guise, at the yearly rent of a clove-jilliflower in acknowledgment of the gift, with the concession of his coat-armour: whereupon the said Anselmus de Guise bore the coat with a carnage, or charged with a mullet pierced fesse, and which arms have been continued by the family, and are now borne by the baronet of that name.

ARMS of Alliances, are such as when an heir or marries, her issue quarter her arms to show their maternal descent. By this means the memory of many ancient and noble families, extinct in the male line, is preserved and conveyed to posterity; which is the principal reason of marshalling several coats in one field.

ARMS of Adoption, are those which you take from another family quartered with your own. The last of a family may by will adopt a stranger to take his surname, arms, and estate, thereby to continue to the world his name and family after his decease; permission for which is obtained by petition to his majesty for his royal licence and authority to comply with the request of the tellator, and the sign manual is then recorded in the college of arms.

A test of the antiquity of a coat of arms is in general its simplicity; a single ordinary, or two at most, constituting the most noble.

ARMS, in Falconry, denote the legs of a hawk, from the thigh to the foot. See HAWKING.

ARMS, King of. See King of arms.

ARMS, Herald at. See HERALD.

ARMS, Pursuivant at. See PURSUIVANT.

ARMS, in Geography, a town of Germany, in the circle of Wefphalia, and county of Verden, seven miles call-south east of Verden.

ARMSTRONG, John, in Biography, was born in the year 1759, at Carlston in Roxburghshire, where his father was minister, under whom he received the rudiments of his education. Being intended for the practice of medicine, he was sent to Edinburgh, and in 1732, took the degree of Doctor, and published for his thesis on that occasion, a dissertation "De tabe purulenta." He soon after came to London, where his wit procured him the notice of some of the most eminent men of the time; particularly he became acquainted with John Wilkes, who was then rising to celebrity. In 1735, he published "An Essay for abridging the Study of Physick, with a Dialogue," written with much humour, "between Hygeia, Mercury, and Plato, relating to the practice of physick, as it is managed by a certain illiberal infancy," which gained him credit as a wit, but was probably one of the causes of his having but little notice as a physician. To repair the injury this might have done him, in 1737, he published "A Synopsis of the History and Cure of the Venereal Disease." This was however soon followed by the "Economy of Love," on sex ingeniously, and licentiously, and calculated entirely to effect any favourable impressions of his flocks for the medical profession which his former work might have excited. Its luxuriancies were considerably pruned by the author in an edition printed in 1748. But the work for which he is indebted for his fame as a poet, is his beautiful "Essay on the Art of preserving Health," which appeared in 1734. It is written in black verse, and is first reprinted one of the finest specimens of didactic poetry in our language. Indeed he seems to have exhausted his stock of genius in the composition of this chef d'oeuvre: his poems on "Benedict Cock," in 1717, "Tale's," in 1733, and "Day," an epistle to John Wilkes, &c. the latter of his effusions in this line, scarcely rising above mediocrity. His ability to Mr. Wilkes was written in Germany, in the year 1744, while he was physician to the British army there; a poem for which he was indebted to some of the friends his wit had procured him. In this poem he unfortunately hazarded a reflection on Churchill, which drew from that irritable bard a severe retort in his "Journey." Before this time, viz. the year 1738, he had published a volume in prose, of "Sketches and Essays," under the name of Launcelot Temple, &c. which was very well received. His friend Wilkes contributed some of the essays in this collection. In the year 1763, he returned to London, and found his practice in medicine somewhat increased, through the connections he had formed in the army; but that his calls that way were not very numerous, appears by his being able, in the year 1771, to make a tour through France and Italy, in company with the celebrated artist M. Tefuti. In his journey he met his friend Dr. Smollett, to whom he was much attached. On his return, he published an account of his ramble, under the name he had before assumed of Launcelot Temple, &c. His last work, a 4to. pamphlet, intituled, "Medical Essays," appeared in 1773. In this he complains of the little attention that had been paid to him, while so many other physicians of inferior abilities had risen to fame and fortune, forgetting that the levity of his own conduct, and not the fickleness or want of deference of the public, occasioned the neglect. A large portion of his time was spent at Slaughter's coffee-house in St. Martin's lane, where he usually took his meals, and where messages to him were ordinarily directed to be addressed. He died September 1779, and left about 3000l. a larger sum than his friends supposed he could have amassed out of his very moderate income.

ARMSTRONG, William, in Biography, was founded in the "Art of preserving Health." Of his style and manner we have the following character by a very competent judge, in an essay prefixed to an ornamented edition of the poem, printed in 1795. "It is distinguished by its simplicity, by a free use of words which owe their strength to their plainness, by the rejection of ambitious ornaments, and a neat approach to common phraseology. His sentences are short and easy; his sense clear and obvious. The full extent of his conceptions is taken in at the first glance; and there are no lofty mysteries to be unravelling by a repeated perusal. What keeps his language from being prosaic, is the vigour of his sentiments. He thinks boldly, feels..."
feals Arantia, and therefore expresses himself poetically. Where the subject hints, his style hints with it, but he has for the most part excluded topics antipathetic either of vital detection, or of the ordinary sentiment. He had from nature a musical ear, whose lines are tacitly ever harsh, though apparently without much truth to render them smooth. On the whole, it may not be too much to affirm, that in black verse can be found more free from flatness and affectation, more enterprising without harshness, and more dignified without formality.

He left his fortune by his will to his three nieces, daughters of his brother Dr. George Armstrong; who, after having practised pharmacy successfully for several years at Hamptead, at length obtained a diploma constituting him Doctor in Medicine, and came to London, and was made physician to a dispensary for the benefit of infant poor, opened at a house taken for him by the suffrers in Soho square. To aid the design, he published a small treatise on the diseases of children, in which he was supposed to have been aided by his brother John. The work was well received, and contained some observations on the subject that were new and ingenious. The dispensary, however, did not succeed; and the Doctor died some years after in obscurity.

ARMUA, in Ancient Geography, the modern Schelmen, a river of Africa mentioned by Pliny, emptied itself into the Mediterranean between Aphroditaum and Hippo Regius, south-east of the former, and north-west of the latter.

ARMUS, in Entomology, a species of Cuculio, found in France. It is black; the scutel whitish; wing-cases with denticulated frize on each side.

ARMUYDEN, or ARMUDEMID, in Geography, a strong sea-port town of Zealand, in the Low Countries, situated on the eastern side of the isle of Walcheren. It was anciently a large place, and divided into the Old and New Town. The convenience of the port, the depth of water, and its nearness to the sea, drew to it much commerce, especially in fish. But it has often been damaged by the sea, and the harbour is now choked up with land, so that the sea is made navigable by means of a canal to Middleburg, from which Armuyden is distant about a league to the east.

N. lat. 51° 31'. E. long. 3° 42'.

ARMUZA, ARMOUZ, or ARMUZIA, in Ancient Geography, a city of Alia, in Caria, near the promontory Armouz, to which it gave name, as well as to the island of Ormus. Pliny, and Ptolemey.

ARMY, a large body of soldiers, consisting of horse and foot, under the command of a general, with several ranks of subordinate officers under him.

An army consists of brigades, regiments, battalions, and squadrons, and is usually divided into three corps; which are ranged in three lines. The first line is called the front-line, and part of it forms the van-guard; the second, the main body; and the third, the rear-guard, or body of reserve. The middle of each line is generally pollied by the foot; the cavalry forms the wings on the right and left of each line; and sometimes they also place squadrons of horse in the intervals between the battalions.

The British army, when it takes the field, is divided into brigades, and these brigades into battalions, squadrons, companies, and troops, both in the infantry and cavalry respectively. The French have lately made a different distribution. Their infantry is divided into half-brigades, each half-brigade consisting of three battalions, and each battalion of nine companies. A company of artillery is attached to each half-brigade, for the management of its field-pieces. The half-brigade are either of the line, or light infantry; each battalion of those in the line having company of grenadiers, and each battalion of light infantry one of carabineers. For the arrangement of the army in order of battle, see ORDER OF BATTLE.

The number of soldiers is necessarily much smaller, and bears a less proportion to the whole number of the people, in a civilized than in a rude state of society. Among the civilized nations of modern Europe, it has been stated, as the result of long experience, that a prince with a million of subjects cannot keep an army of above ten thousand men, without running his head. It was otherwise in the ancient republics; the proportion of soldiers to the rest of the people, which is now about one to a hundred, might then be as about one to eight; and in some of the little Athenian states of ancient Greece, a fourth or fifth part of the whole body of the people considered themselves as soldiers, and would sometimes take the field. The reason seems owing to that equal portion of lands, which the ancient founders of communewas made among their subjects; so that every man had a considerable property to defend, and had means to defend it. While among us, the lands and riches of a nation being shared among a few, the rest have no way of subsisting, but by trades, arts, and the like; and have neither any free property to defend, nor means to enable them to go to war in defence of it, without starving their families. A large part of our people are either artisans or servants, and so only minister to the luxury and efficiency of the great. While the equality of lands subsisted, Rome, though only a little state, being refused the succours which the Latins were obliged to furnish after the taking of the city in the conoast of Camillus, presently raised ten legions within their own walls; which was more. Livy affirms us, than they were able to do in his time, through matters of the greatest part of the world. A full proof, adds the historian, that we are not grown stronger; and that what swells our city is only luxury, and the means and effects of it. Vide Liv. dec. 1. lib. vii.; and Confid. fur des Cauf. de la Grand. des Rom. chap. iii. p. 24.

In the republics of ancient Greece and Rome, during the whole period of their existence, and under the feudal governments for a considerable time after their first establishments, the profession of a soldier was not so separate and distinct, as to confine the whole or even the principal occupation of a particular clafs of citizens. In process of time, however, that industry which produces, and that wealth which follows, the improvements of agriculture and manufactures, provoked the invasion of neighbours, and rendered it necessary for a state, likely and liable to be attacked, to adopt some regular measures for the public defence, more especially as the people, by their natural habits, were incapable of defending themselves. In these circumstances, there seem to be but two methods to which the state can have recourse for its own securitv: one of these is the introduction of a military force under the denomination of a Militia; and the other, the establishment of a standing army. The soldiers of this latter description are solely or principally occupied in the practice of military exercises; and the maintenance or pay which the state affords them is the principal and ordinary fund of their subsistence. In a standing army, the character of a soldier predominates over every other; and the mode of their discipline, as well as the conformity of their exercise, renders the soldiers of this clafs superior to a militia, in whatever manner it may be either disciplined or exercised. This superiority of a well-regularized standing army is attested by the history of all ages. One of the first standing armies of which we have any distinct account, in any well-authenticated history, is that of Philip
of Macedon. His frequent wars with the Thracians, Illyrians, Thessalians, and some of the Greek cities in the neighbourhood of Macedon, gradually formed his troops, which were probably at first militia, to the exact discipline of a flanding army, which, as he was feldom, or never for any long time, at places, he was careful not to disband.

With this army be vanquished, after repeated and violent conflicts, the galling and well-exercised militias of the principal republics of ancient Greece; and afterwards, with very little struggle, the effeminate and ill-exercised militia of the great Perian empire. The fall of the Greek republics, and of the Perian empire, was the first great revolution in the affairs of mankind, which history has circumstantially recorded; and it was the effect of the irrefrangible superiority which a flanding army has over every fort of militia. The fall of Carthage, succeeded by the elevation of Rome, is the second, which may be ascribed to the same cause. From the end of the first to the beginning of the second Carthaginian war, the armies of Carthage were continually in the field, and employed under three great generals, who succeeded one another in the command. These were Hamilcar, his fon-in-law Afdrubal, and his fon Hannibal. The army led by Hannibal from Spain into Italy, must necessarily have been gradually formed to the exact discipline of a flanding army. The Roman armies on the other hand, which Hannibal encountered at Trafymes, and Cannae, were militia opposed to a flanding army; and this circumstance, perhaps, contributed more than any other to determine the fate of those battles. The flanding army which Hannibal left behind him in Spain, had the like superiority over the militia which the Romans sent to oppose it, and in a few years, under the command of his brother Afdrubal, expelled them almost entirely from that country. The Roman militia, being continually in the field, became in the progress of the war, a well-disciplined and well-exercised flanding army; and the superiority of Hannibal was gradually diminished. Afdrubal judged it necessary to lead almost the whole of the flanding army which he commanded in Spain, to the assistance of his brother in Italy, but being surprized and attacked by another flanding army, in every respect equal or superior to his own, he was entirely defeated. When Afdrubal had left Spain, the great Scipio was opposed merely by a militia, inferior to his own; and having conquered and subdued that militia, his own militia necessarily became, in the course of the war, a well-disciplined and well-exercised flanding army. That flanding army, which he transported to Africa, where it was opposed only by a militia; and in order to defend Carthage, it became necessary to recall the flanding army of Hannibal. The dilated and frequently defeated African militia joined it; and at the battle of Zama, composed the greater part of the troops of Hannibal. The event of that day determined the fate of the two rival republics. From the end of the second Carthaginian war, till the fall of the Roman republic, the armies of Rome were in every respect flanding armies: and to these the militias of all the civilized nations of the ancient world, of Greece, of Syria, and of Egypt, made but a feeble resistance. The militias of the barbarous nations defended themselves much better. The Scythian or Tartar militia, and also the Parthian and German militias, were formidable enemies to the Roman armies, and gained considerable advantages over them. In general, however, and when the Roman armies were well commanded, they appear to have been very much superior.

Many different causes contributed to relax the discipline of the Roman armies. One of these causes was its extreme severity. Besides, under the Roman emperors, the flanding armies of Rome, those especially which guarded the German and Pannonian frontiers, became dangerous to their masters, by setting up their own generals against them. To remedy this evil, and to render them less formidable, Dacilian, as some fay, or, according to others, Constantine, first withdrew them from the front, and diffused them in small bodies through the different provincial towns, where some of them became trademen, artificers, and manufacturers; and thus the civil acquired a predominance over the military character, and the flanding armies of Rome gradually degenerated into a corrupt, neglected, and undisciplined militia, incapable of resisting the attack of the German and Scythian militias, which soon afterwards invaded the Western empire. The fall of this empire, which is the third great revolution in the affairs of mankind, dilltilly recorded in ancient history, was brought about by the irrefrangible superiority which the militia of a barbarous nation has over that of a civilized nation. But the victories which have been gained by militias have generally been, not over flanding armies, but over other militias, in exercise and discipline inferior to themselves. Such were the victories which the Greek militia gained over that of the Perian empire; and such were also those which in later times the Swifs militia gained over that of the Austrian and Burgundian. As the art of industry advanced, the military character of the chief towns gradually decayed, and the tradesman body of the people had less time to devote to military exercises. Hence, the discipline and the exercise of the feudal militia gradually declined and fell to ruin, and flanding armies were at length introduced in order to supply its place. When once the expedient of a flanding army was adopted by one civilized nation, it became necessary that all its neighbours should follow the example. They found that their safety depended upon their doing so, and that their own militia was altogether incapable of resisting the attack of such an army. The soldiers of a flanding army, though they may have never seen an enemy, have nevertheless frequently appeared to poffefs all the courage of veteran troops, and the very moment in which they have taken the field have been fit to face the hardest and most experienced veterans. A well-regulated flanding army, as it is superior to every militia, and as it can both be maintained by an opulent and civilized nation, can alone defend such a nation against the invasion of a poor and barbarous neighbour. Moreover, as a civilized country can only be defended by means of a well-regulated flanding army, it is only natural that the people of a civilized country can be more strongly and tolerably civilized.

The first flanding army that appeared in Europe, after the fall of the Roman legion, was that established in France by Charles VII. A.D. 1445. Such an establishment, however, was so repugnant to the genius of feudal policy, and so incompatible with the privileges and pretensions of the nobility, that during several centuries no monarch was either so bold, or so powerful, as to venture on any step towards introducing it. Charles VII. under pretence of keeping always on foot a force sufficient to defend the kingdom against any sudden invasion of the English, when he disbanded his other troops, retained under arms a body of 9,000 cavalry, and of 16,000 infantry. He also appropriated funds for the regular payment of these; he stationed them in different places of the kingdom, according to his own pleasure; and appointed the officers who commanded and disciplined them. By this measure he occasioned an important revolution in the affairs and policy of Europe. By depriving the nobles of that direction of the military force of the state, which had hitherto given to the feudal aristocracy, in that part where its power seemed to be most complete. The institution of flanding armies hath since become general; and this can only be attributed to the superiority and success which are ever attended upon such armies.
ARMY.

every where observed to attend it. The truth is, the close
ness, regularity, and quickness of their movements; the
unreserved, infatuated, and almost mechanical obedience
to orders; the sense of personal honour, and the familiarity
with danger, which belong to a disciplined, veteran, and
embodied foldier, give such firmness and intrepidity to their
approach, as well as such weight and execution to their
attack, as are not to be withstood by loose ranks of occa-
sonal and newly-levied troops, who are liable by their inex-
perience to disorder and confusion, and in whom fear is
consequently augmented by novelty and surprize. From the
acknowledged superiority of flanding armies, it follows, not
only that it is unsafe for a nation to disband its regular
troops, whilst neighbouring kingdoms retain theirs, but
also that regular troops provide for the public service at the
least possible expense. A flanding army adds more than
any other force that can be provided to the common strength,
and takes less from that which composes the wealth of a
nation, or its flock of productive industry. Besides, when the
flate relies for its defence upon a militia, formed from
the mass of the people, such as husbandmen, and artificers,
and manufacturers, it is necessary that arms be put into the
hands of the people at large. Such a militia, inferior indeed
in discipline and force to a flanding army, must be supplied
by rotation, allotment, or some mode of succession, which
replaces fresh draughts from the country; and of course a
much greater number will be instructed in the use of arms,
and will have been occasionally embodied together, than are
actually employed, or than are supposed to be wanted at
the same time. The effect of this diffusion of the military
character upon the civil condition of the country, becomes
a subject of inquiry, peculiarly delicate and important. "To
me," says the ingenious archdeacon Paley, "it appears
doubtful, whether any government can be so secure, where
the people are acquainted with the use of arms, and
accustomed to resort to them. Every faction will find itself
at the head of an army. Every difficult will excite commo-
tion; and every commotion become a civil war. Nothing
perhaps can govern a nation of armed citizens, but that
which governs an army—defopotism." "I do not mean,"
continues this writer, "that a regular government would
become defopot by training up its subjects to the knowledge
and exercise of arms, but that it would ere long be forced
to give way to defopot in some other shape; and that the
country would be liable to what is even worse than a fettled
and constitutional defopot, to perpetual rebellions, and
to perpetual revolutions; to short and violent usurpations; to
the sucessive tyranny of governors, rendered cruel and
jealous by the danger and instability of their situation."

The strength and efficacy of a flanding army depend, in
mixed governments, on its being submitted to the manage-
ment and direction of the prince. A popular council, how-
ever well qualified for the purposes of legislation, is alto-
gerher unfit for the conduct of war; in which success usually
depends upon vigour and enterprise, upon secrecy, dispatch,
and unanimity, upon a quick perception of opportunities,
and the power of seizing every opportunity immediately.
The obedience of an army should also be as prompt and
active as possible; and it ought, therefore, to be an obedience
of will and emulation. Upon this consideration is founded
the expediency of leaving to the prince not only the govern-
ment and direction of the army, but the appointment and
promotion of its officers; because a design is then alone
likely to be executed with zeal and fidelity, when the person
who orders the service, employs the instruments, and rewards
the service. There is, however, a danger to the liberty of a
state, that is inseparable from flanding armies, which ought
not to be concealed nor dissembled, and which has been
thought by some to counterbalance its acknowledged advan-
tages. These properties of their constitution, the foldier
being separated in a great degree from the rest of the com-
munity, their being closely linked among themselves by
habits of society and subordination, and the dependency of
the whole chain upon the will and favour of the prince,
however essential they may be to the purposes for which
armies are kept up, give them an aspect in no wise favour-
able to public liberty. The flanding army of Cæsar de-
stroyed the Roman republic. The flanding army of Crom-
well turned the long parliament out of doors. This danger,
however, is diminished by maintaining, upon all occasions,
as much alliance of interel, and as much intercourse of senti-
ment, between the military part of the nation and the other
orders of the people, as are consistent with the union and dif-
cipline of an army. For which purpose, the officers of the
army should be selected from the principal families of the
country, and be encouraged to establish in it families of
their own, as well as be admitted to seats in the senate, to heredi-
tarial distinctions, and to all the civil honours and privileges
that are compatible with this profession; that by such circum-
stances of connection and situation they may have a share
in the general rights of the people, and their inclination
may be engaged on the side of public liberty, so as thus to
afford a reasonable security that they cannot be brought,
by any promises of personal aggrandizement, to affill in the
execution of measures which might enlave their posterity,
their kindred, and their country. To prevent the executive
power from being able to oppress, says baron Montefquieu,
it is requisite that the armies with which it is entrusted should
consist of the people, and have the same spirit with the
people; as was the case at Rome, till Marius new-modelled
the legions, by infilling the rabble of Italy, and laid the
foundation of all the military tyranny that ensued. Nothing
then, according to these principles, says judge Blackstone,
ought to be more guarded against in a free state, than
making the military power, when such a one is necessary
to be kept on foot, a body too distinct from the people.
Like ours, it should be wholly composed of natural subjects;
ought only to be infilled for a short and limited time;
the soldiers also should live intermixed with the people;
no separate camp, no barracks, no inland fortresses should
be allowed. And perhaps it might be still better, if, by dif-
milling a flated number, and imitating others at every renewal
of their term, a circulation could be kept up between the
army and the people, and the citizen and the foldier be more
intimately connected together.

Since the general introduction and prevalence of flanding
armies in Europe, it has also for many years past been annu-
ally judged necessary by our legislature, for the safety of the
kingdom, the defence of the possessions of the crown of
Great Britain, and the preservation of the balance of power
in Europe, to maintain even in the time of peace a flanding
body of troops, under the command of the crown; who are
however ido fato disbanded at the expiration of every year,
unless continued by parliament. See Mutiny Bill.

It is probable, says Andrews (Hift. of Great Britain, vol. i.),
that the first flanding military force in Britain was that
garrison in Dover Castle, which, by refiling the arms of the
Dauphin of France, invited by the barons to their fucour in
their content with king John, faced the kingdom of
England from a foreign dynasty. Camden quotes from an ancient historian, "Sir Hubert de Burgo,
when made contable of the castle, considering that it was
not for the safety of the fortress to have new guards every
month, procured, by the affection of the king, and of all
that held of the castle, that every tenant for one month's
guard should find his ten shillings, out of which certain
persons
ARMY.

persons elected and sworn, both of horse and foot, should receive pay for guarding the castle.”

If we advert to the ancient history of this country, we shall find, that by the Saxon laws, every freeman of an age capable of bearing arms, and not incapacitated by any bodily infirmity, was obliged, in case of a foreign invasion, internal insurrection, or other emergency, to join the army: that being one of the three services comprehended under the title of the trinoda necessitas; and all such as were qualified to bear arms in one family, were led to the field by the head of that family. Every landholder was obliged to keep arms and weapons, according to his rank and possessions, which he was prohibited from selling, lending, or alienating, or even alienating from his heirs. For their instruction in the use of arms, they had flat times for performing military exercise, and once in the year there was a general review of arms throughout each county. The greater part of the Anglo-Saxon forces consisted of infantry; which seems to have been of two sorts, the heavy and light-armed; and the cavalry was chiefly composed of the thanes, such men of property as kept horses. The Anglo-Saxon mode of drawing up their armies for battle, was in one large dense body surrounding their standard, and placing their foot, with their heavy battle-axes, in the front. The military establishment of the nation underwent a considerable change, when the feudal system was introduced about the year 1066. By this system, all the lands of the realm were considered as divided into certain portions, each producing an annual revenue, denominated a Knight’s Fee: and every tenant in capite, or person who held from the king land amounting to a knight’s fee, was bound to hold himself in readiness, with horse and arms, to serve the king in his wars, either at home or abroad, at his own expense, for a flat time, generally forty days in a year. When this service was accomplished, they were at liberty to return home; but if they remained with the army, they were paid by the king. Persons of this description, unable to serve, were by proclamation directed to find unexceptionable substitutes. Soon after the conquest, the constitutional military force of England consisted of such feudal troops, and of the Posse Comitatus, including every freeman above the age of fifteen and under the age of sixty, who were only liable to be called out in case of internal commotions or actual invasions. That this body of men might be ready to take the field, a law, called the affile of arms, was enacted by Henry II., A.D. 1181, in the 27th year of his reign; which law was further corroborated and enforced by the 13th of Edw. I., called the statute of Winchester, 33 Hen. VIII., c. 5, 2 & 3 Edw. VI. In the reigns of Richard II., Hen. VII., and Henry VIII., four military bodies, still existing, were instituted, viz. the SERJENTS AT ARMS, the GENTLE MEN PAVINGMEN, the YEOMEN OF THE GUARD, and the ARTILLERY COMPANY.

During the troubles under Charles I., the royal army consisted chiefly of regiments raised by the nobility and gentry who adhered to the royal cause, from among their tenants and dependants. After the restoration of Charles II., when feudal tenures were abolished by act of parliament, a national militia was established; which was declared, by an act of parliament, to be under the immediate orders of the king. See MIlITIA. Besides these constitutional forces, there were in the English armies and garrisons, at all times from the conquest downward, stipendiary troops, both national and foreigners; the first hired by our kings, with the money paid by persons commuting for their feudal services, and employed in castle guards, foreign garrisons, and protecting the marches or borders of the kingdom, adjoining to Wales and Scotland; and the latter, paid out of the privy purse, or living upon free quarters. They were known by the various names of rupartii, routers, and ruyters, from a German word signifying a horsemanship or knight; they were also denominated Brabançons, Provençales, Cotercili, and Flemings, and were in reality a set of freebooters of all nations, ready to be engaged for hire. These were chiefly called in by our kings in their disputes with the great barons. Since the time of King Edward III., when it became customary for our kings to engage with their subjects, and other persons by indenture, to furnish soldiers at certain wages, most of our armies consisted of stipendiary troops: such was the army raised and commanded by the bishop of Norwich, A.D. 1382, the 6th of Richard II., and that of Henry IV. Of these stipendiary forces were, the garrisons and castle guards excepted, kept up only in time of war; and though mercenary, were not freebooting armies. Their subsistence was drawn from the grants made by parliament, in which their specific numbers were sometimes stipulated. The first footing forces employed by our kings were their immediate body-guards, such as the serjeants at arms, the yeomen of the guard, and the gentlemen pensioners; and yet these were calculated rather for the splendour of a court than the operations of the field. Under the troubles of Charles I., a number of troops were levied by both parties, without any regard to law or custom. Two regiments of guards raised by Charles II. in 1660, one of horse and one of foot, formed the two first corps of our present army; and these were afterwards considerably increased. In 1661, the first regiment, or Royal Scots, were brought back from France, jubilantly filled from its antiquity, “Pontius Pilate’s guards”; and there was also, about the same time, an English corps of cavalry in the French service. The revolution caused the military part of the constitution to be new modelled, and the bill to be voted from year to year, by the act filled the MUTiny Bill.

The methods of raising the stipendiary, or mercenary troops, were either by commissions, resembling our present recruiting orders, authorizing persons to enlist volunteers; or by indenture, which was a practice that began about the latter end of the reign of King Edward III., and in that of Henry V. became general. By these indentures, different persons engaged to provide a certain number of able men, properly armed, to serve the king for a flat time, at a stipulated pay and bounty, then styled wages and regards: and in these agreements it was usual for the king to advance part of the pay before-hand, afterwards called “Impept Money,” and also to give security for the regular payment of the remainder. For this purpose, King Henry V. pledged all his jewels, which were not redeemed till after his death. Criminals were also sometimes pardoned on condition of serving in the royal army abroad, and finding security to answer any prosecution if called upon at their return. Several of our sovereigns also, under the authority of the royal prerogative, obliged districts, cities, towns, and even individuals, to send men and horses, or to pay contributions for that purpose.

The present mode of recruiting our armies is by engaging volunteers, who are enlisted to serve for an indefinite time, that is, till they shall be discharged, or for a certain time, with an annexed clause, “or during the war.” See Inlisting. Precluding for soldiers was practised much in its present form in the time of Queen Elizabeth; and it has been several times occasionally authorized by acts of parliament. This, however, in itself, is but a bad expedient, and in general timidly, partially, and improperly executed.

The army, as it now stands, may date its origin from the restitution; though some of the establishments, formed by Charles II., were taken from corps raised during the civil
civil wars; such as the first regiment of foot, and the Coldstream regiment of guards, which last came with general Monk from Scotland. The royal regiment of horse guards, commonly called the Oxford Blues, is among the first in this establishment. The two troops of horse-guards, embodied by Charles about the same time, and of which the privates were all gentlemen, have been for some years abolished; and in their room have been substituted two fine regiments of cavalry, subject to military discipline like the rest of the army, and called the first and second regiments of Life Guards.

The regular army established by Charles II. consisted at first of little more than 5,000 men, including carriions abroad. In 1684, the standing army amounted to 8,000 men; that on the 11th establishment having been at the same time augmented to 7,000. During the two succeeding reigns the army was much increased, as the nation was engaged in continental wars. Under Gen. I., in 1717, the forces voted by parliament amounted to 16,000 men. The standing army was much augmented during the following reign, on account of foreign wars and internal disturbances. Every successive war has augmented the establishment of the army in proportion to our acquisition of foreign territory. At the conclusion of the American contest, the forces were reduced to about 40,000 men for Great Britain and Ireland: and the peace establishment, in 1802, consisted of 126,899 men, including 17,000 cavalry, six regiments of colour in the West Indies, amounting to 4,138 men, and the foreign corps of Swits, &c. estimated at 5,530. For the different kinds of troops, see CAVALRY, FENCIBLES, FOOT, GRENADIERS, GUARDS, INFANTRY, INVALIDS, and MARINES, &c. For the arrangement of an army in an engagement, see ORDER OF BATTLE.

An army sometimes acquires different appellations from the services in which it is employed. Thus, a covering army is that which covers a place, by lying encamped or in cantonments for the protection of the different places which lead to a principal object of defence. An army is said to blackade a place, when, being well provided with heavy ordnance and other warlike means, it is employed to invest a town for the direct or immediate purpose of reducing it by assault or famine. An army of observation, is so called, because by its advanced positions and defultory movements it is constantly employed in watching the enemy. Such a body of troops is employed by besiegers to prevent relief being brought into a place, or the siege being raised by the enemy. An army of reserve may not improperly be called a general depot for effective service. In cases of emergency, the whole, or detached parts of an army of reserve are generally employed to recover a lost day, or to secure a victory. It is also sometimes used for the double purpose of secretly increasing the number of active forces, and affording the aid necessary to prevent exigency, and of deceiving the enemy with respect to its real strength. A flying army is a strong body of horse and foot, usually commanded by a lieutenant general, which is always in motion, both to cover its own garrisons, and to keep the enemy in continual alarm. Smith's Wealth of Nations, vol. iii. ch. 1. part 1. Robertson's Charles V. vol. i. p. 112. Paley's Princ. of Mor. & Pol. Philosophy, vol. ii. p. 425. Mostefq. Sp. of Laws, vol. i. p. 229. Blacket. Com. vol. i. p. 417. De Lomme's Cont. of Eng. p. 429, &c. Grose's Milit. Ant. vol. i.

Army, Naval, is a number of ships of war, equipped and manned with sailors and marines, under the command of an admiral, with other inferior officers under him.

Army, Royal, is an army marching with heavy cannon; capable of besieging a strong, well-fortified city.

For the diseases incident to armies, see DISEASE, CAMP, GARRISON, HOSPITAL, SOLDIER, &c.

ARNA, in Ancient Geography, a town of Italy, in the eastern part of Umbria, opposite to Perugia and near the Tiber, mentioned by Silius Italicus, l. viii. v. 438; now known under the name of "La Civitella d'Arne."" ARNA, or Arne, a small territory of Greece, in Thessaly, so called from its metropolis, Panay, and being a district of Thessaly. Strabo says, that Homer gives the name of Arne, or Arne, to Arpilim in Boeotia, assigning to it the epithet πορναιοτεκνη, on account of its abundance of grapes. It is said to have derived its name from Arne, the daughter of Cleitus, by whom son Boreas it was built.—Arna was also a town of Asia Minor, in Lycia, called by some authors Xanthus.—Also, a town of Spain, on the right of Beticus, between Hipaspis to the south-west, and Corduba to the north-east.—Also, a town of the island of Andros, in the Archipelago.

ARNAB, in Zoology, the name of the hare (Lepus) among the Arabs.

ARNABA, in Entomology, a species of Papilio (Nymph, gem.), found in Surinam. The wings are slightly indented and brown; posterior pair bluntish, with five ocellated spots beneath. Fabricius. Oj/. This author suspects that the insect figured by Cramer, under the specific name Leon, may belong to this species.

ARNAK, in Ichthyology, one of the Arabian fishes of the Raja genus, described by Forskal in his Faun. Arab. p. 9. n. 13. The body is roundish and silvery; tail without fins, and armed with two spines. Forsk. Gmelin. The teeth are granulate.

ARNALDIA, in Physea, a flow malignant kind of disease, frequent formerly in England; the most distinguishing symptom whereof was a falling of the hair.

Authors are much at a loss for the nature and kind of this disease, which appears to have been peculiar to our country. From the description given of it in an ancient chronicle, Mollerus concludes it to have been a species of the venerable disease, as that distemper appeared in three days in this country.

ARNAU, in Geography, a town of Bohemia, in the circle of Koniggratz, on the Libe.

ARNAUD DE VILLA NOVA, so called from Villeneuve, the place of his birth, in Biography, a philosopher and physician of extraordinary talents, born about the middle of the thirteenth century, studied at Paris and Montpellier, and further improved himself by visiting the different schools in Italy. He then travelled to Spain, where he acquired a knowledge of medicine, and of their language, from the Arabian physicians. He here acquired so much reputation, that a seat was formed in the country, called from him "A nolditer." He is said to have had such faith in a trilogy, as to predict from the aspect of the stars the termination of the world, which he propounded would happen by the year 1576. He was a great elymist, and wrote several treatises on the subject. While in Spain, he became acquainted with Raymond Lully, who call'd him his master. At Paris, he had given his opinion so freely on theological matters, particularly of the monks, and of the mafs, that the faculty of theology there condemned fifteen of his positions, one of which was, "that the works of mercy and of medicine were more acceptable to God than the sacrifice of the altar," To avoid the consequences of their censures, and finding the Inquisition were proceeding against Apono, for taking similar liberties with religion, he retired to the court of Frederic of Aragon, who had formerly been his friend, and there wrote his treatise concerning the government of health, and his commentaries on the Schola Salernitana. He is supposed to have died about the year 1312. In 1313, pope Clement
ARN

wrote a circular letter, adjuring every one under their apolitical obedience, to discover and tend to him a treatise on the practice of physic written by Arnauld which he had promised to give his holiness, but was prevented, he sup- posed, by his death. Friend's Hist. of Phys. vol. ii. p. 257. His works, which were numerous, were collected and printed at Lyons in folio, 1570: and again at Balle, 1582, with notes by Nicolas Telerus. Eloy has given a catalogue of the treatises in his Dict. Hist. among them we find, "Expositionis vineanum quæ sunt in sommis, ad usitatum medicinae." "Remedia contra maleficia." "De conferenda juventute, et retardanda senectute;" and others "ejusdem faminis;" but many of them are on more familiar and useful subjects. He complains in several parts of his works, of the interference of the clergy in the practice of physic, to the great detriment of the professors of the art, as well as of the art itself. The evil however continued to increase, notwithstanding the attempts of the popes to check it, until after the revival of letters.

ARNAULD, in Geography, a fortified island on the west ern coast of the hither peninsula of India, commanding the entrance of the Angilafiyah or Mandavee river, between Bombay and Surat.

ARNAULD, ANTONY, in Biography, an eminent lawyer, was born at Paris in 1550. As an advocate to the parliament of Paris, he was distinguished for his eloquence and probity, and confuted by persons of distinction on the most important affairs. His pleadings against the Jefuits in favour of the university of Paris, in 1594, which are famous, were published in Svo. at Paris in 1594, and in 12mo. in 1717. He also published another work against the Jefuits, in 1602, and "Advice to Louis XIII." in Svo. in 1615. He died in 1619, and several of his sons acquired great celebrity. Nouv. Dict. Hist.

ARNAULD, D'ANDILLY, the eldest son of the preceding, was born at Paris in 1588. In several polls of distinction which he occupied at court, he employed his influence in support of justice and virtue; and such was his character, that Bæzzez said of him; "he was neither ashamed of the Christian graces, nor vain of the moral virtues." At the age of fifty-five, he retired to Port Royal, and devoted himself to religious studies. He died at the age of eighty-five, having retained the full vigour both of his body and mind. Besides other works, his "Translation of Josephus," and "Ditat ad Amsterdam," his "Apologetic memoir for the house of Port Royal," was written in 1554; "Memoirs of his life by himself," were printed in two volumes 12mo.; and "A Poem on the life of Chirill," was printed in 1688,12mo. Nouv. Dict. Hist.

ARNAUD, HENRY, brother of the preceding, abbot of St. NichoIs, and afterwards bishop of Angers, was born at Paris in 1597. For his services to the family of the Barba rini, in 1645, on occasion of their disputes with pope Innocent X., they struck a medal in honour of him, and erected his statue in their palace at Rome. From the time of his appointment to the see of Angers, in 1649, to his death in 1653, he left his diocese only once, which was for the purpose of reconciling the duke of Tremouille to his son. He is said to have appeased the queen mother when she was about to punish the inhabitants of Angers for their revolt in 1652, by laying to her at the communion, "Receive your God, who, when he was dying on the cross, pardoned his enemies." It is reported concerning him, that the dearth at his favourite to have offended him. His whole time was devoted to study, religious exercises, and the affairs of his diocese; and being exhorted by a friend to allow himself one day for relaxation, he replied, "I shall willingly do it, if you can find a day in which I am not a bishop." Although he attained the advanced age of 92, his death was considered as premature, and he was lamented as the father of the poor, the comforter of the afflicted, and the bell of bishops. His "Observations" at the court of Rome, and in other courts of Italy, containing many curious remarks, were published at Paris, in 1748. Nouv. Dict. Hist.

ARNAULD, ANTHONY, an eminent Jansenist, was the twentieth child of the advocate of the same name, and born at Paris in 1612. Having first studied the languages and philosophy in the college of Calvi, and afterwards theology in the college of Sorbonne, he was, in the year 1643, admitted a member of the Sorbonne. In the dispute between the Jansenists and Jansenists, concerning frequent communion, Arnauld took an active part; and in 1643 published his famous book on "The Practice of communicating frequently." The frequent celebration of the Lord's Supper was strenuously recommended by the Jansenists as the most certain and infallible method of appeasing the deity, and obtaining plenary remission; but the Jansenists, and also many other learned and pious doctors of the Roman church, condemned this mode of thinking, whilst they rejected the inordinate and inefficient operation, called the "opus operaturn," attributed to the sacraments; and maintained that the act of receiving the sacrament of the Lord's Supper can be profitable only to those whose minds are prepared by faith, repentance, and the love of God, for that solemn service. Arnauld's treatise on that subject gave great offence to the Jansenists; and their enmity against him was increased by the books written by him in defence of the Jansenists, on the subject of grace. In 1656, he was excluded from the faculty of divinity of Sorbonne, against the judgment of seventy-two doctors of this faculty; and from this time he withdrew into solitude, where he remained twelve years, and employed himself in writing curious treatises in various branches of science. When the perfection of the Jansenists was upheld by pope Clement IX. in 1669, Arnauld returned to Paris, and was respectfully received both by the pope's nuncio, and by Louis XIV. At their requell he defended the Catholic faith against the Calvinists; but his enemies succeeded in bringing him into dispute with the king, and he thought it prudent to retire. Accordingly he left the kingdom in 1670, and took up his residence in the Netherlands, where he essentially served the cause of the Jansenists, and gained over by his eloquence and sagacity the Roman congregations in Holland to their party. In this retreat he also wrote "An Apology for the Clergy of France, and the Catholics of England," in reply to the "Politics of the Clergy of France," written by Jurius, a Protestant minister, and published at the Hague; and this reply produced from the pen of Jurius, a piece of keen satire, entitled "L'Epirit de M. Arnauld." His "Reflections philosophical and theological," were produced by Malbranche's treatise "On Nature and Grace;" and in a work, "On true and false Ideas," he attacked the philosophical doctrine advanced by this author in his "Search after Truth." His "Practical Morality of the Jansenists," was levelled against this fraternity; and he also attacked father Simon on the inspiration of the scriptures, and wrote in defence of the propriety of translating the scriptures into the vulgar tongue. Notwithstanding all the zeal of Arnauld in vindication of the Catholic faith, his orthodoxy was suspected, and in 1690, a canonical warrant was issued against him, under the contemptuous and illiberal description of "One Arnauld," by the superiors of the several monastic fraternities at Liège. Arnauld, however, persevered in his attachment to the church, notwithstanding the charges of heresy with which he was reproached; and in his last moments he received the sacrament from the hands of his prêtre,
prifft, though he had only two days before celebrated mass. He retained his faculties to the advanced age of 82 years, and died at Bruffels, on the 8th of August, 1694. His heart was carried, at his particular request, to Port Royal, and there it was honorably deposited. Arnauld posseffed a vigorous and active mind; his memory was tenacious, his literature various and extensive: he excelled as a logician; and in theology and ecclesiastical history he was deeply read; and he was well acquainted with polite literature. His genius was original and inventive; and he is said to have taught in philosophy, opinions similar to those of Des Cartes, before his writings appeared, and to have maintained the doctrines of Janfenuis several years previous to the publication of that prelate's book on grace. Although Arnauld suffered perfeerion with the Janfenuis whilst he lived, it has been a problem of no easy solution ever since his death, whether he was an heretic. His writings are chiefly controversial, and bear evident marks of a strong intellect and lively fancy. In polite literature and philosophy, he published "A general and rational Grammar," illustrating the universal principles of language, reprinted with notes by M. Duclos in 1756; "Elements of Geometry;" "The art of Thinking;" "Reflections on the Eloquence of Preachers;" "Objections to the Meditations of Des Cartes;" and "A treatise on true and false Ideas." On the subject of grace, his principal works are "Reflections philosophical and theological," and translations of several pieces of Auguftine. In the controversy against the Protestants, he wrote "The perpetuity of Faith;" "The overthrow of Christian Morality by the Calvinists;" "The impolicy of Calvinistic Morality;" "An apology for the Catholics;" "The Calvinists convicted of impious tenets in Morals;" and "The Prince of Orange, a new Abilom, a new Herod, a new Cromwell," which was extensively circulated through various courts of Europe by Louis XIV. Against the Jefuits, his most famous work is "The practical morality of the Jefuits," in eight volumes, to which several learned Janfenuis are supposed to have contributed; it was republished at Amsterdam in 1742. His writings upon the holy scriptures are "Difficulties proposed to M. Steyart;" "Defence of the New Testament of Moses;" "The translation of the Mifal into the vulgar tongue, authorized by Scripture and the Fathers;" and an "Hiloply and Harmony of the Evangelists." After his death M. Quefnel published, in nine volumes, his "Letters" and several "Poetical Pieces," among which is the "Differtation on the method of Mathematicians," vindicating his mode of writing, and justifying, in certain disputes, the use of terms commonly thought harh.


Arnauld, George, son of an eminent surgeon at Paris, applied himself, during the latter part of his life, almost exclusively to the cure of ruptures, in which he acquired considerable knowledge. On account of some accident occurring while he practiced midwifery, occasioned, as it was suspected, by mismanagement, he was removed from Paris to London, where he continued to reside the remainder of his life. In 1748, he published "Difertation on Hemias, or Ruptures, in two parts," in Svo. In these he gives directions for enabling persons afflicted with ruptures, to avert the danger usually consequent to that accident. He supposes that one eighth part of our species suffer from this complaint, which, though perhaps an exaggerated account, shews its frequency, and how necessary it is to direct the attention of surgeons towards making improvements in its treatment. He gives the signs by which the different kinds of ruptures may be distinguished, and clear and definite directions for managing them. He relates cases of cures effected by him after a gangrene had taken place, by cutting out the mottled part of the integument. In 1753, he published "Plain and easy Inructions on the Diseases of the Bladder and Urethra," in 12mo. in which he highly commends the use of bongies. In his "Memoires de Chirurgie," published in 1768, in 2 vols. 4to. he gives the whole of Dr. Hunter's treatise on the "Hernia congenita," with additional observations, from inspection of a case that fell under his notice; also further observations on ruptures, and observations on aneurisms. We have, by the same writer, "Remarks on the compostion, use, and effects of the extract of lead of Gualard, and of his vegato-mineral water," 1770, 12mo. Bibloth. Chirurg. Halter.

Arnaud, Belligrad, in Geography, a town of European Turkey, in the province of Albania, 40 miles north-east of Valona.

Arnauds, in Military Language, denote Turkish light cavalry, whose only weapon is a very crooked sable. Some such are in the Russian service.

Arnaud, Le Duc, in Geography, a town of France, and principal place of a district, in the department of the Coté d'Or, and chief place of a canton in the district of Beaune, 25 miles south-west of Dijon, and 24 south of Semur en Auxois. The place contains 2543, and the canton 11,550 inhabitants: the territory includes 2675 kilometers and 20 communes. N. lat. 47° 7'. E. long. 4° 26'.

Arndal, a small town of Norway, in the diocese of Christiania, and district of Nidadal, seated on a rock in the middle of the river Nid, and remarkable for a good wharf or landing-place. The houses stand mohly on the declivity of the rock, and the others are built on piles in the water. The inhabitants pass from house to house by means of bridges of boats. The town is commodiously situated for trade; and many ships are employed in the transportation of timber. The church stands near the summit of the rock, and there is an ascent to it from the houses by steps hewn in the rock. In the neighbourhood of this place are many iron mines.

Arndorf, a town of Germany, in the circle of Bavaria, and principality of Saltzbach, four miles east of Kemnatt.

Arndt, John, in Biography, an eminent Protestant divine, born at Ballinlacht, in the principality of Deffau in Germany, in 1555. In consequence of a vow which he made when he was sick, whilst he was persecuting the study of medicine, he devoted himself to divinity; and was successively minister of Quedlinburg, and at Brunswick. His fame, as a preacher, excited jealousy among his brethren; and being charged with errors, he escaped persecution by retiring to Lieben; and in 1611, the duke of Luenburg gave him the church of Zell, and appointed him superintendent of all the churches in his duchy. The charge against him was occasioned by a book which he published at Jena, in 1605 and 1608, intituled "True Christianitv," asserting that many of the irregularities fulfilling among Protestants were owing to a mistaken notion of the efficacy of a speculative faith unproductive of good works: he laid great stress on the contrary doctrine; and intermixed some mythical ideas and expressions, borrowed from the writings of Bernard, Thomas a Kempis, and other ascetics. He thus gave offence to several of his brethren, and particularly to Osiander, a divine of Tubingen, who attacked him in a treatise, intituled "Judicium Theologicum." By Osiander, and others, it was alleged against him, that his style was infected with the jargon of Paracelitus, Weigelus, and other mythical
Anno, Joshua, a German divine, was born at giltrow in 1626, and became professor of logic at rooldock, and preacher, and also ecclesiastical counsellor to the duke of mecklenburg. He died in 1657, and left several works, particularly "miscellanæ sacra," 8vo.; "clavis antiquitatum judaïcarum," 4to.; and "tractatus de superflunione." His life, written by his son, was printed at giltrow in 1697. Nov. Dic. Hiflor.

Arne, Thomas Augustinæ, was the son of Arne, the celebrated upholsterer of king-linnet, Covent-garden, at whom house the Indian kings lodged in the reign of queen Anne, as mentioned in the spectator, No. 56. Arne had a daughter by a second marriage, also named Anne, to his father, who intended him for the law. But we have been assured by several of his schoolfellows, that his love for music operated upon him too powerfully for his own peace, or that of his companions; for, with a miserable cracked common flute, he used to torment them night and day, when not obliged to attend the school. And he told us himself, that when he left eton, such was his passion for music, that he used to avail himself of the privilege of a servant, by borrowing a livery, and going into the upper gallery of the opera, which was then appropriated to domestics. At home he had contrived to recite a psalm in his room, upon which, after muffling the flings with a handkerchief, he used to prattic in the night while the rest of the family were asleep; for had his father discovered how he spent his time, he would, probably, have thrown the instrument out of the window, if not the player. This young votary of apollo was at length obliged to serve a three years' clerkship to the law, without ever intending to make it his profession; but even during this servitude, he dedicated every night to that fair art of his, having, for the study of music. Besides practising on the psalm and studying composition by himself, he contrived, during his clerkship, to acquire some instruction on the violin, of fielding, upon which instrument he had made so considerable a progress, that soon after he had quitted his legal master, his father accidentally calling at a gentleman's house in the neighbourhood upon business, found him engaged with company; but finding in his name, he was invited up stairs, where there was a large company and a concert, in which, to his great astonishment, he caught his son in the very act of playing the first fiddle! Finding him more admired for his musical talents than knowledge in the law, he was soon prevailed upon to forgive his unruly passion, and to let him try to turn it to some account. No sooner was the young musician able to practice aloud in his father's house, than he bewitched the whole family. On discovering that his father was not only fond of music, but had a very sweet toned and touching voice, he gave her such instruction as soon enabled her to sing for lany in his opera of alma. And finding her so well received, his performances, he soon prepared a new character for her, by setting Addison's opera of rofamond, in which he employed his younger brother likewise in the character of the page. This musical draw was first performed March 7, 1733, at Lincoln's-inn fields, where Mrs. Barber performed the part of the king; Leveridge, Sir Trudy; Page, Maber Arne, who had never appeared in public; Meller, Mr. Corfe; Queen, Mrs. Jones; Gridleine, Mrs. Chambers; and the part of rofamond by Mrs Arne. The opera was performed ten nights together, and with great applause; the last time, for the benefit of Mr. Arne, jun., the composer. Having succeeded so well in a serious opera, our young musician tried his powers at a burletta, and fixed upon fielding's tomb thumb for that purpose, which, under the title of the tragedy of tragedios, having met with great success in 1731, he now got it transformed into the opera of operam, and setting it to music after the Italian manner, had it performed May 31st, at the new theatre in the Haymarket; the part of tomb thumb by Maber Arne, his brother. Princeps alemia and the duke of Cumberland honoured the second representation with their presence; the prince of wales, the sixth; the youngest princesse, the eighth; and afterwards it had a considerable run.

In 1736, Maber Arne, his father, now Mrs. Clibber, who had captivated every hearer of sensibility by her satiety of voice and power of expression as a singer, first appeared as a tragic actress, in the part of Zara, at Drury-lane, where her brother was engaged as composer; and it was not difficult to fancy which of the two received the greatest applause; the actress for her truly interlacing person, and pathetic voice and manner, or the musician for his nature and pleasing brains, particularly the March, which was encored every night, and remained in great favour throughout the kingdom during many years.

In 1738, Arne established his reputation as a lyric and dramatic composer, by the admirable manner in which he fet Milton's Comus. In this masque he introduced a light, airy, original, and pleasing melody, wholly different from that of purell or Handel, whom all English composers had hitherto either pillaged or imitated. Indeed, the melody of Arne at this time, and of his vauxhall songs afterwards, forms an area in English music; it was so easy, natural, and agreeable to the whole kingdom, that it had an effect upon our national taste; and till a more modern Italian style was introduced in the palliccio English opera of mehra. Bickerstaff and cunningham, it was the standard of all perfection at our theatres and public gardens.

In 1742, Mr. and Mrs. Arne went to Ireland, where they remained till 1744; in the autumn of which year he was again engaged as composer, at Drury-lane; and on the death of Gordon, the first violin, who was ficed for his nature, he accepted of the station in the orchestra of that theatre of leader of the hand. His hand was enfeebled by rheumatism, but his skilful passed that of any performer on the violin who had preceded him.

Mr. Arne and Mr. Boyce were frequently concurrents at the theatres, and in each other's way, particularly at Drury-lane. Arne was aspiring, and always regarded Handel as a tyrant and usurper, against whom he frequently rebelled; but with little effect, except upon his own purse, for he was always a lofer whom he had oratories performed in lent on the fame night as Handel. But in his songs for the theatres and public gardens, he was ever triumphant over all competitors. At vauxhall, particularly, where his ballads, dialogues, duets, and trios, were performed during many years with great applause, and were afterwards circulated all over the kingdom. In the summer of 1745, when vocal music was first added to instrumental, by Mr. Tyers, the proprietor of vauxhall, Arne's little dialogue of coln and phaebes, written by the late Mr. Moore, author of fables for the female sex, was constantly enquired every night for more than three months successively.

In 1759, this ingenious and popular composer had the degree of doctor in music conferred upon him at Oxford. And
And in 1766, quitted his former style of melody, in which he had so well set Comus, and furnished Vauxhall and the whole kingdom with such songs as had improved and polished our national taste; and when he let the bald translation of Metalliño's opera of Artaxerxes, he crowded the airs, particularly in the part of Mandane for Miss Brent, with all the Italian divotions and difficulties which had ever been heard at the opera. This drama, by the novelty of the music to English ears, with the talents of Tenducci, Peretti, and the doctor's scholar Miss Brent, had very great success; and still continues to be represented whenever fingers can be found who are possessed of sufficient abilities for its performance. But in setting Artaxerxes, though the melody is less original than that of Comus, Arne had the merit of still adapting many of thehill passages of Italy, which all Europe admired, to our own language, and of incorporating them with his own property, and with what was still in favour of former English composers.

The general melody of our countrymen, if analysed, would perhaps appear to be neither Italian nor English, but an agreeable mixture of Italian, English, and Scots. Many of his ballads, indeed, were prefolved imitations of the Scots style; but in his other songs he frequently dropped into it, perhaps without design.

Arne never was a close imitator of Handel; and was almost the only English composer of the last century, who did not build his fame on imitations of his works, and who was not proud to hear his admirers lay of his compositions—'in all Handel.' On which account Arne was never thought by the veterans of their great model to be a found contrapuntist. However, he had an inward and secret reverence for his abilities, and for those of Geminiani, as well as for the science of Pepusch; but except when he attempted oratorios, there was not the merit requisite for him, a popular composer who had different performers and different hearers to write for. In the science of harmony, though he was chiefly self-taught, yet being a man of genius, quick parts, and great penetration in his art, he betrayed no ignorance or want of study in his scores.

The oratorios he produced were so unfortunate, that he was always a lover whenever they were performed. And yet it would be unjust to say that they did not merit a better fate; for though the choruses were much inferior in force to those of Handel, yet the airs were frequently admirable. But besides the great reputation of Handel, with whom he had to contend, Arne never was able to have his music so well performed; as his competitor had always a more numerous and select band, a better organ, which he played himself, and better fingers.

None of this ingenious and pleasing composer's capital productions had full and unequivocal success but Comus and Artaxerxes, at the distance of twenty-four years from each other. Rofamond, his first musical drama, had a few songs in it that were long in favour, and the Judgment of Paris many; but except when his filler, Miss Arne, afterwards Mrs. Cibber, sang in them, he never gained any thing by either. Thomas and Sally, indeed, as a farce, with very little musical merit, was often acted; and previous to that, Eliza was a little while in favour; but the number of his unfortunate pieces for the stage was prodigious! yet none of them were condemned or neglected for want of merit in the music, but words, of which the doctor was too frequently guilty of being the author. Upon the whole, though this composer, who died March 5th, 1778, had formed a new style of his own, there did not appear that fertility of ideas, original grandeur of thought, or those resources upon all occasions, which are discoverable in the works of his predecessor Purcell, both for the church and stage; yet, in secular music, he must be allowed to have surpassed him in ease, grace, and variety; which is no considerable praise, when it is remembered, that from the death of Purcell to that of Arne, a period of more than fourteen years, no candidate for musical fame among our countrymen had appeared, who was equally admired by the nation at large.

Of near a hundred and fifty musical pieces that were brought on the stage at the two theatres, from the time of his composing Rofamond, to his decease, a period of little more than forty years, thirty of them, at least, were by Arne. Arne, Michael, the natural son of Dr. Arne, was brought at an early age on the stage by his aunt Mrs. Cibber, who took great pains in qualifying him for the part of the page in the Orphan, and his father also tried to make him a singer; but he was naturally idle, and not very quick. However, he acquired a powerful hand on the harpichord, and played with neatness and precision some of Scarlatti's most difficult fffs. It is recorded with reluctance as a beacon, that his moral character was less deserving of praise than his professional. Always in debt, and often in prison, he fung his first wife to death and starved the second, leaving her in absolute beggary.

Arne, in Ancient Geography, a town of Afia, in Melopotamia. —Allo, a town of the territory of the Ermakini, in the vicinity of Thrace.—Allo, a fountain of Peloponnesus, in Arcadia.

Arne, in Geography, a river of Switzerland, descends from the lofty Alps in the vicinity of Mont Blanc, and forms a junction with the Rhone about a quarter of a league from Geneva; and the two rivers run together for more than half a league before their waters are blended: the stream is broad, and on one side is the brown and muddy Arne, while on the other are distinctly seen the clear, blue, and untainted waters of the Rhone. This river, or rather torrent, is subject to sudden and considerable swellings; and its waters have flowed back on the bed of the river, and in their recessed course turned the mills that are constructed on its banks. The waters of the Arne, when it has deposited the silt with which it is charged, is of the purest quality. Saufure, Voy. des Alps, tom. i. § 13, &c.

ARNEWBURG, a small town of Germany, in the circle of Upper Saxony, and old mark of Brandenburg, seated on the Elbe. The principal subsistence of its inhabitants is derived from navigation and traffic in corn, and also in agriculture. From the town of Arnewburg are denominated a circle and provincial riding. It is 50 miles west of Berlin. N. lat. 52° 45'. E. long. 11° 50'.

ARNEWO, a sea-port town of Peru, with a good harbour, in the Pacific ocean, 23 miles north of Lima. S. lat. 11° 38'. W. long. 76° 54'.

ARNE, a town of Hindostan, in the Carnatic, 14 miles S. of Arcot, and 52 N. W. of Pondicherry.

Arne, in Zoology, a quadruped of the Bos or Ox tribe, a native of India, and which appears to have been first described by Mr. Kerr, in his work on the Animal Kingdom. To Gmelin it was very probably unknown. In the General Zoology by Dr. Shaw it is specifically described in these terms: Bos Arne. B. cornubica eritica lunaria super planifolia rugosa.—Ox with upright branched horns, flat and wrinkled on their upper surface. The latter writer observes that this Indian species is known chiefly by its vaft horns, which are sometimes seen in museums; and from Indian paintings, in which it is occasionally represented.

In the work of Mr. Kerr, it is said to have been met with by a British officer, in the woods above Bengal; and to have been fourteen feet high, measuring from the hoofs to the top of the horns. It partakes of the form of the horfe, the bull, and the deer; and is represented as a bold and daring animal. The figure of this species in the work of Mr.
Mr. Kerr, is copied from an Indian painting, and the same figure is again introduced into Dr. Shaw's Zoology. The animal is of a black colour, quite smooth, and without either protuberance or mane.

ARNEMUDEN. See Armyneden.

ARNEN, or Arnem, in Geography, a town of Swifterland, in the Valais, thirty-five miles call of Sion.

ARNESIO, a town of Italy, in the kingdom of Naples, and country of Bari, seven miles W. S. W. of Andria.

ARNES-SYSSEL, a district of Iceland, in which is situated the episcopal see of Skalholt.

ARNELV, a town of France, in the department of Sarre; and chief place of a canton, in the district of Sarrebruck. The place contains 502, and the canton 8514 inhabitants; the territory includes 31 communes.

ARNFELS, a town of Germany, in the duchy of Stria, ten miles south-east of Landburg.

ARNIGHTZES, a town of Walachia, forty-two miles S. S. E. of Hermanstadt.

ARNHUSEN, a town of Germany, in the circle of Upper Saxon and duchy of Pomerania, twenty-four miles call of New Sestin.

ARNHEIM, or Arnem, Arnolds-villa or Arenacum, a large, strong, and populous town of the United Netherlands, the capital of Arnheim or the Veluwe quarter of Guelderland, lies on the north side of the Rhine, at the foot of the Veluwe hills, near the place where the Vecht and the Rhine separate their streams. The streets are regular, the houses well built, the walls are delightfully planted with elm and lime trees, and the town is the usual winter residence of many families, who spend the summer on their estates in the Veluwe, where they enjoy a much more fabulous air than that of the maritime provinces of Holland. The church of St. Walburg is a fine edifice; and that of Eembus has an excellent chime of bells. Arnheim is fortified with a rampart of earth, faced with brick, and walked on one side by the Rhine, and on the other by a deep fosse, dug by Drusus Nero. This city was founded before the time of Tacitus, who mentions it under the name of Arenacum; and it was fortified and invested with the privileges of a city by Otbo III. duke of Gueldern, A. D. 1233. It is thirty miles east of Utrecht, and forty-five south-east of Amsterdam.

ARNBERG, a mountain of Swifterland, in the district of Erzgebirge.

ARNICA. In Botany. Lin. p. 958. Schreb. 1296

Juli. 182. Gardin. t. 177. Claes, fynegasta polygonum fjerum. Nat. Ord. Composita diffusia. Caryophyllaceae. Jull. Gen. Char. Calyx, common, shorter than the ray of the corolla; leaves lanceolate, the length of the calyx, erect. Cor. compound, radiate; corollas hermaphrodite in the disk, very numerous; females in the ray about twenty; proper of the hermaphrodite, tubular, erect, five-cleft, equal, female lanceolate, very long, three-toothed, spreading. Stam. to the hermaphrodite, filaments very short; anther cylindrical; to the females, filaments subulate, erect; anthers none.

Pet. germen oblong; style simple, the length of the filaments; stigma bident. Ped. none; calyx unchanging. Seeds, solitary, oblong; down simple, in the hermaphrodite pubescent, long.

Rec. naked. Olf. Corollas of the disk often trifid, with the outer division twice as broad as the others.

Eff. Gen. Char. Rec. naked; down simple; corollas of the ray have five filaments, without anthers.

Species. 1. A. mantana, mountain arnica. Gardin. fr. 2. 481. Flor. Dan. t. 63. Woody, Med. Bot. t. 180. "Leaves ovate, entire, stem-leaves twin, opposite;" the root is woody; stem above a foot high, and not more than half this height in alpine situations, simple, obscurely angular; flowers two inches in diameter, of a deep yellow, and placed on upright terminal peduncles; calyx cylindrical, composed of rough hairy scales; ligulate florets about fourteen, three-toothed, fringed, as long as the calyx, hairy at the base; seeds oblong, blackish, hairy, crowned with a straw-coloured down. A native of most parts of the continent of Europe, and of Siberia, flowering in July; cultivated by Miller in 1759. 2. A. piloselloides, mouse-car arnica; "leaves perfectly entire, elliptic, villose; face one-flowered, woolly; calyx equaling the ray;" the stem and leaves covered with down; stem two or three inches long, and about half this breadth, hairy, especially on the back, pointed; scape twice as long as the leaves, very woolly towards the top; flower large; calyx tomentose, of the length of the ray; florets of the ray very narrow, of a dark red or purple colour, and male. A native of the Cape of Good Hope. 3. A. foersteides, alternate-leaved arnica. Jacq. Flor. Aufl. t. 4. 1740. "Leaves alternate, toothed." The roots are contorted, and thus supposed to have some resemblance to a scorpion; items several, from six inches to a foot in height, terminated by a deep yellow flower, of two inches diameter; root-leaves roundish or oval, deeply serrate, on long foot-thanks; stem-leaves few, nearly fertile, villose, flat, flaggy. The whole plant has a disagreeable smell. A native of Swifterland, Savoy, Dauphine, &c. Cultivated by Miller in 1759. 4. A. donitrimum, Jacq. Flor. Aufl. t. 92. A cushion alpin. ped. A. liraeae. Villars Dauph. 210. "leaves alternate, subfractured, oblong, rough." The leaves are hairy; stem from four to eight inches high, and never bears more than one flower. A native of the high Alps of the Grisons, Dauphine, Piedmont, and Andria. 5. A. maritima, tea arnica. After, helenium maritimum, &c. Gmel. lb. ii. p. 173. "leaves lanceolate, the lower ones serrate; stem leathery, many florecled." A native of Kamtschatka and North America. 6. A. crenata, farron-flowered arnica; "leaves ovate; repand totoletted, tomentose underneath;" scape one-flowered, with a few linear bracte; root-leaves oval, often heart-shaped, rigid, petioled; florets of the ray furnished with flavens. A native of the Cape of Good Hope. 7. A. ciliata, ciliate-leaved arnica; "leaves stem-clasping, oval, toothed, ciliate, smooth; stem simple, one-flowered." The stem is erect, a foot high, angular, hispid, with white bristles; leaves alternate, lower attenuated at the base, obovate, gaff-toothed, ciliate; upper roundish, finely toothed, smaller ciliate; flower terminating, red, the size of a small pear. A native of Japan. 8. A. japonica, japonica arnica. Thunb. p. 319. "Leaves gaff-palmated, totoletted; flowers terminal, sub-binate;" the stem is hollow, round, flattened, erect, more than a foot high; leaves petioled, alternate, smooth, lobes gaff-pinnatifid, toothed; petioles of the lower leaves long, of the branches broad; stem-clasping, flattened, short; flowers peduncled, red, few. A native of Japan. 9. A. palmata, palmate-leaved arnica. Thunb. i. c. "Leaves gaff-palmated, toothed; flowers panicked;" the stem is two feet high, flattened, erect, smooth; leaves alternate, p. toothed; lobes of the lower leaves unequal, toothed, the upper undivided, serrate; flowers terminating, small, yellow. A native of Japan. 10. A. german, "Leaves pinnatifid;" lobes rounded; the lobes of the leaves are imbricated backwards, and, when young, tomentose underneath; the scape is surrounded with very slender leaves, and supports one large flower, with a dark purple disk, and a yellow ray, purple underneath. A native of the Cape of Good Hope. 11. A. coronophipha, "Leaves pinnate;" dilatation linear. This very much resembles the german, and is also native to the Cape. 12. A. grunia. Forli. Aufl. t. 299. Shrub; leaves lanceolate, callous-crinate, tomentose beneath; peduncles one-flowered, ciliate, filamentary, terminating, ciliate. A native of New Zealand.

Medicinal Properties. The only species supposed to posses...
these in any considerable degree is the arnica montana, the virtues of which have been most extravagantly extolled in Germany. It was first recommended as peculiarly efficacious in bruises, and hence obtained the appellation of pa-
aucta lapiforum; and to this solvent power its utility in various diseases has been ascribed, particularly in pulmonary complaints, suppurative menorrhagia, hepatic obstructions, &c. Of its use in paralytic and other affections of a similar nature, many testimonies are adduced: nor have its good effects been less praised in rheumatism and dropsy; but it is the extraordinary febrifuge and antifeptic powers of the arnica which have been peculiarly celebrated by Dr. Collin of Vienna. With the flowers of this plant made into an elixir with honey, he informs us, that he cured more than one thousand patients labouring under the different species of intermittent fevers, in the Pauzen hospital, from December 1771 to July 1774, and with the watery extract of the flowers he cured thirty quidians, forty-six tertiars, and forty-eight quartans. In putrid fe-
vers the Doctor employed an infusion of the flowers, with which many hundreds of patients were snatched from the very jaws of death. There are some cases, however, in which the Doctor recommends the roots in preference to the flowers, believing the former to possess more cordial, tonic, and antifeptic qualities; he therefore prefers it where putridity and debility are more prevalent than fever. It was also found very efficacious in a malignant dysentery, in which he adduces many hundred instances of its successful employment, confirmed by the practice of Dr. Dietl. In thirteen cases of gangrene, this medicine proved its antifeptic virtue in a still more evident manner. The Doctor gave nine drams of the powder of the flowers of arnica, mixed with a sufficient quantity of honey, in the course of forty-eight hours. Of the infusion in the proportion of one ounce to two quarts of water every two hours. When he employed the root, it was in double this proportion. At first this plant is apt to occasion vom-
ing or uneasiness at the stomach, so that it is necessary to begin with small doses. See Wod. Med. Bot. vol. i.

Propagation and Culture. 1, 2, 3, 4, 5, the European species are hardy, and require a moist situation. They may be propagated by parting the roots in autumn when the stalks begin to decay, or by the seeds sown in autumn soon after they are ripe, for those sown in the spring often fail; but if the seeds are permitted to sear, the plants will often come up of themselves, and require no other care than keeping them clean from weeds. The other species must be kept in pots under a frame, or in a dry house. They may be increased by seeds, cuttings, or parting the roots, and must be treated as other plants from the Cape of Good Hope. See Martyn's Miller's Dict.

Arnica. See Doronicum.

Arnicae, in Enotomology, a species of Staphylinus from the Africa, and described by Scopoli. It is black, the thorax and antennae ferruginous; legs tectaceus.

Inhabits Europe.

Arnica is also a species of Musca that inhabits Europe, and is said to be found chiefly on the disc of radiate flowers, and especially on that of Arnica montana. It is described by Linnaeus in his Fauna Suecia; and by Scopoli. The wings are hooked, grey, and spotted with black.

Arnias, in Geography, a small island of Denmark, in the duchy of Sleivick, in the gulf of Schelby.

Arniseus, Heniusus, in Biography, a celebrated philosopher and physician, born at Haberstadt in Lower Saxony, taught medicine at Helmaîdt the beginning of the seventeenth century, where he acquired such reputation that he was invited to Denmark, and made physician and coun-
sellor (archiater) to the king. In 1619, he published "Ob-

fervatimnes aliquot Anatomiae," in 4to. In describing a woman who died the sixth day after being delivered of her first child, he says, the osa pubis separated from each other, and the osa ilia from the sacrum, and hence ac-
counts for the greater difficulty with which women part with their first, than with their subsequent children: "quia articulatio tum primum folivit." Later observations have however shown us, that this separation of the bones of the pelvis is of very rare occurrence, and when it does happen to any considerable degree, occasions incurable lameness.

The following year he published, "De partus humani legitimis terminis." This he fixes at the end of the ninth, or the beginning of the tenth month, though he admits a certain latitude, that is, that the fetus may be perfect and fit for exclusion some weeks earlier, so it may some-
times be determined in the uterus beyond that period.

He wrote also several political works, which are still esteemed. His book "De auctoritate principum in populum femper inviolabili," was printed in 1614; and his "Reflexiones politico," in 1746. To this work he in-
tended making additions, which were never completed.

He was industrious in his endeavours to acquire information, and for this purpose travelled over France and England. Haller. Bib. Chr. Gen. Dict.

Arnissa, in Ancient Geography, a town of Greece, in Macedonia.

Arno, anciently Arnaus, a river of Italy. rises in the Apennine mountains, in the duchy of Tuscany; falls by Florence, divides Pisa into two parts, and enters the Medi-
iterranean, in the gulf of Genoa, twelve miles north of Leghorn, and four below Pisa, to which it is navigable for small vessels. It receives in its course the Sieva, the Peda, and the Elsa.

Arno is also a river of Abyssinia, which falls below Embrun, into the lake Tzana.

Arnobius of Africa, in Biography, a Christian divine, flourished about the beginning of the fourth century, and taught rhetoric, in the reign of Dioclesian, at Sicca in Africa, with great reputation. At this time, he was a blind and zealous idoler; but he afterwards became a convert to Christianity, and a distinguished advocate in its defence.

The manner of his conversion is thus related by Jerom in his chronicle, at the twentieth year of Conftantire, or the year of Christ 326. "Arnobius, a rhetorician, is famous in Africa; who, while he taught the youth rhetoric at Sicca, and was yet a heathen, was admonished in his dreams to embrace Christianity. But when he applied to the bishop of the place for baptism, he rejected him, because he had been wont to oppose the Christian doctrine. Whereupon he composed an excellent work against his old religion, and this at length, as by hostages of his piety, he obtained the seal of the covenant."

Dr. Lardner questions the genu-

![Image](arnica.png)
of observing the multitude with which the Christians endur'd their sufferings.

Arnobius's work "Adversus Gentes," or "Against the Gentiles," was probably written some time after the commencement of Diocletian's persecution, about the year 305 or 306; for he speaks in it of the afflictions endured by the Christians, as if they were actually suffering at the time of his writing. This work, which consists of seven books, is a valuable defence of Christianit.y. It shews that he was acquainted with the Jewish scriptures, and with the books of the New Testament; though he did not think fit to quote them expressly in writing against the Gentiles. It evinces the learning and piety of the author; and though it contains a mixture of pagan errors with Christian doctrines, and though some passages are obscure, and the style, which is strong and nervous, is harsh and unpolished, it may be read with pleasure and advantage. It is much to the honour of this rhetorician, who possessed a very considerable share of the learning of Greece and Rome, that he embraced the Christian religion in a state of persecution, and that he employed his talents in its defence. His summary of the Christian religion is as follows: "We Christians are men who worship the great Lord of the universe, according to the direction of Jesus Christ. If you examine it, you will find nothing else in this religion: this is the sum of the whole affair: this is the lefe and design of all our religious offices: to this supreme Lord we bow down: him we worship with united prayers: to him we present holy, and innocent, and honourable requests, fit to be heard by him." The arguments, by which he proves the truth and divine original of Christianity, are deduced from its excellence; from the amiable and perfect character of its author; from the miracles of our Lord himself and those of his disciples; from the great effect of the Christian religion in softening the tempers and amending the manners of its votaries, and fouling the seeds and principles of benevolence, peace, and friendship among mankind, and in refining them from idolatry and a false worship; from the extensive progress and influence of the Christian doctrine, insomuch that there were then Christians, in all countries, as Syria, Persia, Scythia, Africa, Spain, Gaul, &c.; from its having been embraced under the greatest difficulties and discouragements by men of all ranks, as by orators, grammarians, rhetoricians, lawyers, physicians, philosophers, and the greatest wits, as well as by men of low condition and inferior attainments; from the absurdity of supposing that so many people should on a sudden, without any good reason, change their former opinions and customs, and forsake the religion of their ancestors, and thus expose themselves to singular danger and severe sufferings; and from the character and situation of the first writers of Christianit.y, who had no inclination to induce them to fallacy, and who, by withholding their testimony, might have avoided many sufferings, and lived quietly and comfortably among their neighbours: so that they must have been fully persuaded of the truth of the things which they related. By such solid and convincing arguments did this Christian rhetorician and apologist vindicate the truth of our holy religion more than 1500 years ago. He has likewise examined and well refuted some of the principal objections against Christianity. To the Christian religion he bears this honourable testimony: "It treats to its own evidence, and stands firm upon its own foundations, whether any man embrace it, or not." Of the time and manner of Arnobius's death we have no account. Among his disciples we may reckon the learned Laëntius. His treatise "Adversus Gentes," was first printed at Rome, in fol. in 1542; at Basile, in 1546 and 1560; at Paris, in 1580; at Antwerp, with Canter's notes, in 1582, 8vo.; at Coligny, in 1604: at Leyden, with various notes, in 1651, 4to; and at the end of Cyprian's works, at Paris, in 1666. Lightfoot's Works, vol. iv. p. 1-22. Cave Hui. Lit. i. p. 161. Fabr. Bibl. lat. i. iv. c. 3. t. ii. p. 280.

Arnobius the Younger, or of Gaul, a Christian divine, lived about the year 461, and published brief Commentaries upon the 150 Psalms. He took part with the Pelagians in the disputes on predetermination, against the followers of Augustine. His work was dedicated to Leontius, bishop of Arles, and Rufinus, bishop of Narbonne, and printed at Basile, in 1522; by Eразиmus, at Cologne, in 1532, and by Laurentius de Barre, at Paris, in 1601: and in the Bibl. Patrum of Paris and Leyden. Fabr. Bibl. lat. i. p. 292.

Arnoldi, in Antonine, the same with Richardson. The word is compounded of alpha, a lamb, which was their usual reward, and ab. fort, 'a grudging spirit.'

Arnold of Brescia, in Biographie, an Italian monk, was a native of Brescia, but in his youth travelled to France, where he became a disciple of Abelard, and probably imbued some of his notions concerning the Trinity and the Sacraments, that were repugnant to the orthodox creed. On his return to Italy, he assumed the monastic habit, and taught some doctrines that were deemed heretical. His hereby, however, was chiefly of a political kind. Having perceived the disorders and ananoties, the calamities and disorders, that sprung from the overgrown opulence of the pontiffs and bishops, he was persuaded that the interest of the church and the happiness of nations in general required, that the clergy should be divested of all their worldly possessions, and of all their temporal rights and prerogatives. He, therefore, maintained publicly, that the treasurers and revenues of popes, bishops, and monasteries, ought to be solemnly renounced and transferred to the supreme rulers of each state; and that nothing was to be left to the ministers of the gopel but a spiritual authority, and a sufficiency drawn from tithes, and from the voluntary oblations and contributions of the people. This doctrine was eagerly embraced by the laity; and it was recommended by the extensive erudition, irreproachable character, singular authority, and vehement zeal of the proposer. Arnold was honoured as a patriot, and the inhabitants of the diocece of Brescia revolted against their bishop. The church was alarmed, and the reforming monk and his doctrine were condemned in the council of Lateran, A. D. 1179, by Innocent II. Arnold fled from perfection to Swifferland, and found an asylum at Zurich, where his doctrine was at first received with applause; but at length he was obliged to leave Switzerland, and after the death of Innocent II. in 1151, he returned to Italy, and set up the standard of ecclesiastical reform, and of civil freedom at Rome. His bold harangues on the inalienable rights of men and Christians, roused the populace, and produced tumults and seditions, which terminated in the emancipation of the inferior clergy from the despotic yoke of the cardinals, and in a change of the civil government of the city. Arnold, in fact, possessed the chief power in Rome during ten years, while the Popes "either trembled in the Vatican, or wandered as exiles in the adjacent cities." On the accession of Adrian IV., Arnold and his followers were driven from Rome, and found protection at Orscoli in Tuscany. After the coronation of Frederic Barbarossa, pope Adrian preferred complaints to the emperor against Arnold; and he was feized by cardinal Gerard, brought to Rome, and condemned by the prefect of the city to suffer death. Accordingly, in 1155, he was burnt alive; or, as Molheim says, crucified, and afterwards burnt; and his ashes were thrown into the Tiber, left the people should wonder at the sacred relics. Arnold was undoubtedly of an impetuous and turbulent spirit, and his proceedings were impudent and violent: but one of his biographers
ARN

biographers has not utruly observed, "that he lived in an age which provoked reform," "With his blight," says Gibbon, "his left was dispelled," though "his memory still lived in the minds of the Romans." But Motheim says, that "this violent reformer, in whose character and manners there were several things worthy of esteem, drew after him a great number of disciples, who derived from him the denomination of Arnoldists; and, in succeeding times, discovered the spirit and intrepidity of their leader, as often as any favourable opportunities of reforming the church were offered to their zeal." Motheim's Ecc. Hist. vol. iii. p. 119. Gibbon's Hist. vol. xii. p. 291, &c.

ARNOLD, NICHOLAS, was born at Lutin in Poland, in 1618; and after having studied in several universities, and visited England in 1644, was chosen professor of divinity at Franeker in Friesland, in 1652; which post he occupied till his death in 1635. He is the author of several tracts against the Socinians; particularly, "A Refutation of the Catechism of the Socinians," "A Commentary on the Epistle to the Hebrews," and "Last Testimony of Mr. Grotius," printed at Leiden in 1648, &c. and explaining passages added by the Socinians in favour of their system. Gen. Dict. Arnulf, a German divine, and celebrated ecclesiastical historian, was born at Ansbach, in the mountains of Miflin in Saxony, in 1606, and studied in the university of Wittenberg, where he acquired reputation by his personal conduct and literary improvement. In 1697, he was appointed professor of history at Gifffen, but disapproving of the forms of admission required in the German universities, he resigned his office, and in 1608 retired to Quedlinburg. In 1700, he removed to Altdorf, where he became the king's chaplain to the duchess dowager of Eisenach. Being obliged to leave this city, in 1705, he was invited to Brandenburg by the king of Prussia, and preferred to the office of chaplain of the church of Werben; and in 1707, his Prussian majesty appointed him pastor and inspector of the churches of Perleburg, and afterwards historiographer to that court. Here he died in 1714. He was considered as the patriarch of the Scotch German mystics, called "Pietists." Besides many other works, he wrote in German, "A History of the Church, and of Heretics," "Historia Ecclesiastica et Heretica," printed at Leipzig in 1700, &c. which incurred the reproach of being his a defender of heretics; and in Latin, "The History of Mystical Theology." Theriged Lutherans have treated him with peculiar veneration; and Motheim represents his history, "as the production of a violent spirit, and dictated by a vehement antipathy against the doctrines and institutions of the Lutheran church." He acknowledges, however, that "he became at last a lover of truth, and a pattern of moderation." Gen. Dict. Motheim's Ecc. Hist. vol. v. p. 325.

ARNOLD OF HILDEDEHEIM, an historian of the thirteenth century, bom under the emperors Philip and Otho IV. His "Continuation of the Chronicle of the Slavonians by Helmoldus," is chiefly valuable in its relation to Schonavia. It was published at Lubeck in 1659; and by Mebonius in the "Opuscula Historica," printed at Helmstadt in 1609. Dupin.

ARNOLDS, SANY, Muf. D. and celebrated musical composer, received his musical education at the Chapel Royal, St. James's, partly under Mr. Gates, and partly under his successor, Dr. Nares. He manifested early indications of those talents by the cultivation and exercise of which he acquired celebrity in the science to which he was devoted; and his application, as well as subsequent attainments, fully justified the expectations which were formed concerning him both by his parents and preceptors. It is hardly necessary to mention that little lively air, "If tis joy to wound a lover,"

which first excited popular attention, as it was soon succeeded by various compositions of a superior kind, which evinced the genius and taste, and established the professional reputation, of Mr. Arnold. About the year 1760, Mr. Beard, one of the managers of Covent Garden theatre, duly apprized of his extraordinary merit, introduced him to the notice of the public, as composer to that house; and in the year 1776, he was engaged by Mr. George Colman, to conduct the musical department at the theatre in the Haymarket. The chief musical pieces that were produced for many years at this theatre, were composed by Mr. Arnold. Having in early life enjoyed the benefit of Handel's direction and superintendence, and having derived from this sublime composer, a taste for sacred music, he diverted his attention from those lighter pieces in which he had gained reputation, to the composition of oratorios; and his performances of this kind served to augment the fame which he had already acquired. In the year 1767, he made choice of the "Cure of Saul," written by the late Rev. Dr. Brown, for the subject of his first effort in a higher style of musical composition. Such was his success, that this production is generally allowed to be the best of its kind since the time of Handel. It was generously presented by the author to the society instituted for decayed musicians and their families; and to that society it proved a very valuable acquisition. The approbation of the public encouraged Dr. Arnold to proceed; and the "Cure of Saul" was soon followed by the oratorios of "Abimelech, the "Reformation," and the "Prodigal Son," which were performed during several successives Leuits at the theatre-royal in the Haymarket, and Covent-garden theatre, under his own management and direction. About the time of his composing the "Reformation," he published in score, four sets of Vauxhall songs, most of which are singularly sweet in their melodies, and display in their accompaniments a thorough acquaintance with the characters and powers of the various instruments. Of all his oratorios, says an anonymous writer, the "Prodigal Son" reflects the greatest honour on his talents and judgment. So high, indeed, was the fame of this sacred drama, that in 1773 a trial was performed with his permission, at the installation of the late lord North, as chancellor of the university of Oxford. In consequence of his ready compliance with the request made to him for this purpose, he was offered an honorary degree in the theatre, but he preferred obtaining it in the academical mode; and, agreeably to the statutes of the university, he received it in the school-room; where he performed, as an exercise, "Hughes's poem on the power of Music." On this occasion it is customary for the musical professor of the university to examine the exercise of the candidate; but Dr. Hayes, then professor of Oxford, returned Mr. Arnold's score unopened, saying to him, "Sir, it is quite unnecessary to scrutinize the exercise of the author of the Prodigal Son." In 1771, Mr. Arnold married a lady of good family and fortune; and about the same year he purchased "Marybone gardens," which were then a much frequented scene of gaiety and fashion. Here he provided for the entertainment of the public, several excellent burlettas, which were very favourably received. On the death of the late Dr. Nares, in 1782, Dr. Arnold was appointed his successor as organist and composer to his majesty's chapel at St. James's; and at the grand performances of the commemoration of Handel, in Westminster abbey, the first of which took place in 1784, he was one of the subdirectors, and presented with a medal, which his majesty permitted the subdirectors always to wear, as a testimonoy of his approbation of their conduct on that occasion. In 1786, Dr. Arnold projected the plan of publishing
ARN

Anon, in Geography, a river of France, which runs into the Cher, near Vitton.

ARNOSERIS, in Botany. See LAPSANA.

ARNOSORA, in Geography, a town of Italy, in the kingdom of Naples, and province of Principato Citra, 12 miles S.E. of Salerno.

ARNOTA, a town of Wallachia, 18 miles west of Kimuck.

ARNOTT, in Botany, a name given by the peasants of Burgundy, and many other places, to certain roots which they frequently turn up, from five or six inches depth, in plowing the ground. They carefully collect these, and eat them, after roasting in the ashes, or otherwise; by which fort of cooking they acquire the taste of a chestnut, and are found to be a very wholesome and nourishing food. They are blackish on the outside, and white within, and are of the size of a small walnut. They are common in the north of Scotland, and called anrois. See DUMUM.

ARNOTTO. See BIXA.

ARNOYA, in Geography, a river of Spain, which runs into the Minho, near Rivadavia, in Galicia.

ARNSBURGH, a town of Germany, in the circle of Upper Saxon, and county of Schwartzburg Rundolstadt. 3 miles S. E. of Sonderhausen.

ARNSBURG, is also a town of Germany, in the circle and county of Solms-Branfels, 3 miles N.E. of Muntzenberg, and 6 S.S.E. of Gießen.

ARNSFIELD, a town of Germany, in the circle of Upper Saxony, and county of Erzgebirg, 5 miles south of Wolkenstein.

ARNSHAUG, a town of Germany, in the circle of Upper Saxony and district of Neustadt, 1 mile south of Neustadt.

ARNSHEIM, a town of Germany, in the circle of the Lower Rhine, and palatinate of the Rhine, 20 miles N.W. of Worms, and 13 S.W. of Mentz.

ARNSTADT, a town of Germany, in the circle of Upper Saxony, and county of Schwartzburg, on the Gera, 12 miles south of Erfurt. N. lat. 50° 46'. E. long. 11° 3'.

ARNSTIE, a town of Germany, in Thuringia, and county of Mansfeld, between Mansfeld and Quedlinburg.

ARNSTORF, a town of Germany, in the archduchy of Austria, 6 miles west of Mautern.

ARNSTSEE, a town of Germany, in the circle of Upper Saxony, and old mark of Brandenburg, on the side of a deep lake formed by an earthquake in the year 811.

ARNULPH, or ERNULPH, in Biography, bishop of Rochester in the reign of Henry I., was born at Beauvais in France, about the year 1040. Having studied at the abbey of Bec, under Lanfranc, archbishop of Canterbury, he came over to England at his solicitation; and passed through the gradations of prior of the monastery of Canterbury, and of abbot of Peterborough, to the see of Rochester. He held this see nine years, and died in 1124, at the age of 84 years. His mind was tinctured in a very considerable degree with the superstition of the age in which he lived. His works are a history of the church of Rochester, known by the title of "Textus Rohanius;" "An epistle on incestuous marriages;" and "An epistle containing answers to divers questions of Lambert, abbot of Minster, especially concerning the body and blood of our Lord." Biog. Brit.

ARNULPHIN, ARNULPHINUS, a coin of the value of a ducat and a half, current in some parts of France in the fifteenth century. Du-Cange.

ARNULPHUS, in Biography, an Egyptian by birth, and a magician by profession, lived in the reign of Marcus Antonius, and deluded the Roman people by his pretended miracles.
The river Ar, twenty-nine miles S. S. E. of Paderborn, and thirty-eight W. S. W. of Gottingen. N. lat. 51° 15', E. long. 8° 36'.

AROSA, in Modern Chemical Language, is applied to a certain subtle attenuated principle, in which the smell of all odorous bodies is supposed peculiarly to reside.

The term aroma has superseded that of spiritus rectior, used by the elder chemists down to the time of the modern alterations in chemical nomenclature; but the latter appellation has had a more extended sense; of which, as a part of chemical history, it may be proper to lay a few words.

The ancient chemists, who united in a rare degree the opposite qualities of ardent imagination and patient inquiry, supposed that in every animal or vegetable there is a certain aura, or spirit peculiar to that single body, and so subtle as to be perceived by the fenes of smell and taste, or by particular effects upon the nervous system of the animal body. This aura then exhibits the proper character of that body, and from its great penetrability, exquisite subtlety, and extraordinary volatility, it was termed the spiritus rectior, or precluding spirit.

If we consider the appropriate and often intense odour professed by the fragrant or the fœtid vegetables, by bulk and other animal juices; the nutus odor whereby living animals distinguish each other, whereby the bound leisures its game or recognizes its master; the narcotic aura of opium; and the sickening and often deleterious efflavia of several of the most formidable poisonous vegetables found in tropical regions; and lastly, the suificial matter of contagion which is scarcely evident to any sense; and only known by its terible effects; when all these circumstances are taken in view, we cannot consider it as a very wild conjecture to suppute something peculiar in the nature and essence of odour independent of all other natural bodies.

The ancient chemists, however, have not limited themselves to general conjectures, but have attempted to analyse the properties of this odorous principle, to give it "a local habitation and a name," and in doing so they have been carried beyond the sober bounds of rational inquiry, and have advanced opinions which have long been confounded to merited oblivion.

We shall not attempt the unprofitable task of unravelling the mysteries of Paracelsus and other chemists of the same standard, in order to pursue this inquiry; but shall avail ourselves of the learning and admirable judgment of the excellent Boerhaave, to select just so much of these opinions as is necessary to throw the idea of a spiritus rectior, which is very general in its nature, has come to be confounded almost excluively to the aroma of vegetables. This spirit, as Boerhaave observed, was supposed "to be lodged by the Creator in a tenacious durable matter, not easily to be diffused either by air, water, or fire, and called oil, by whose lenter it is as if it were incinerated and prevented from flying off and deftecting the body for whose direction it was appointed." This oil, however, is more volatile than the common oil, and contains the spiritus rectior in a very sparing quantity.

The idea and name of essence and quintessence have a similar origin. The ancient chemists conceived that the four elementary substances of fire, air, earth, and water, contributed to the composition of bodies, and to this was added a fifth essence (quinta essentia) extremely small in quantity, but rich in efficacy, which by its own particular virtue imparted odour, colour, taste, and inherent characteristic qualities.

Having formed this theory, an apposite illustration was requisite,
The requisite, and none appeared so much to the purpose as the
products obtained by the distillation of some of the aromatic
vegetables. The following example which Boerhaave gives
is very clear and intelligible: supposo cinnamon, "which is
an aromatic of a most fragrant smell and pleasant taste; on
distilling a pound of this with boiling water, there will arise
a milky odorous savoury liquor, to the bottom of which settles
a little reddish fragrant oil, strong of the virtue of the
cinnamon, and such the liquor was. After separating
the liquors, let the remaining bark be distilled with a
second water, upon this will arise a limpid watery juice
of an acid taste, a faint smell, and affording none of the
marks of cinnamon, &c." The inference which the
author would draw from this is obvious; the spiritus rectior, or
distinguishing characteristic of the cinnamon, refines in
the water and oil, the products of the first distillation; and
the remaining substance of the bark consists only of the common
vegetable principles, is inert in its nature, moridous, iniprid,
and incapable of producing those effects upon the nervous
system of living animals which it exhibited before distillation.
Again, if the distilled water separated from the oil be ex-
pelled to the air, the whole place will smell of cinnamon,
and the water will after a while become iniprid, and lose all
its aromatic virtue, yet without suffering a greater loss of
weight than common water would have done under similar
circumstances; and also if the fragrant oil be exposed to the
air, it will gradually lose its odour, but will remain nearly
of the original weight: and from these facts it is inferred,
that the spiritus rectior is extremely small in quantity, when
separated from those substances with which it is naturally
combined.

The example of the aromatic vegetables corresponding so
well in these important particulars with the theory of a pecu-
cular aroma or efflent spirit, we ought not to be surprized to
find the opinion of Paracelsus and the older chemists,
divelled of its mysticism and extravagance, supported by
such respectable authorities as Boerhaave, Macquer, Beau-
me, and many other excellent chemists; and the prococes
for obtaining the spiritus rectior have long formed a regular
part of the practice of chemistry.

As the extraction of the aroma of vegetables makes an
interesting branch of vegetable chemistry, we shall give the
process and the remarks of the celebrated Beaufme, whose
long experience as a pharmaceutical chemist entitles him to
the highest attention.

"To prepare the spiritus rectior of thyme, take any
quantity of this plant fresh gathered and flowering, put it
in an alcumbne, and moisten it with a very small quantity of
water (which addition however is not requisite where a suc-
culent plant is employed). Distill with a water bath in a
very gentle heat, not equal to that of boiling water, and
a perfectly clear odorous water will arise. When about
half an ounce of this liquor to the proportion of a pound
of the plant has distilled over, stop the operation, and this
liquor is the spiritus rectior of thyme. If however the pro-
cesses be continued till the plants be perfectly dry, a larger
quantity of liquor comes over, and this is called officinal
water of thyme."

In like manner may be prepared the spiritus rectior of
all other aromatic or acid plants. This preparation is not
used however in medicine, probably from being too expen-
sive, and from not differing very materially in properties
from the distilled essenttial water, which is yielded in much
larger quantities, and prepared by the addition of more
water to the plants before distillation.

If the liquid spiritus rectior be kept even in well closed
bottles, it becomes mouldy and vificid in a year or two, but
the same effect takes place much more rapidly when exposed
to the air.

The quantity of aroma furnished by the several odorous
plants differs greatly: those that have a high and penetra-
ting scent, but yield little effental oil in distillation, such as
the tuberose, jasmine, joquille, &c. are fail to give the
greatest proportion of spiritus rectior, but in so volatile a
state that it cannot be procured in union with water in the
usual way. The intermeirc of alcohol or fixed oil, is re-
quired in this case.

If the aroma be considered as a separate principle, there
may be no plea for denying its production when the pun-
gent acid vegetables are submitted to distillation. Thus,
mustard-feed, distilled with the precautions above mentioned,
yields an intensely pungent aqueous liquid, in which the
lucid qualities of mustard are certainly very much con-
denmed, and it would be called by the olden chemists the spi-
ritus rectior of mustard.

We shall treat more fully of these prococes under the
article Distilled Waters of Pharmacy, Distilled Spirits,
and Od. Essential.

Even the inodore plants, such as lettuce or borage, when
distilled with care by a very gentle heat, may be made
to yield a liquor in which an odour peculiar to each plant
may be selected, and this may be termed the aroma of
these vegetables.

By the processes of coloration, or re-distilling the first li-
quor over fresh materials, the aroma appears to be con-
denmed in a much smaller bulk of watery menstruum, and
at the same time the liquor becomes superfaturated with the
aromatic effental oil of the plant. This is shown in a
striking manner in the preparation of that exquisite orien-
tal perfume, the Attar of Roses. That most speedy fatal
of all known poisons, the Laurel Water, is another ex-
ample of the same; the aroma of the laurel has a sudden
and violent operation on the nervous system of living an-
imals; now if laurel leaves are distilled in a gentle heat with
a small quantity of water, the first product is a clear li-
quor holding all the aroma in solution, smelling powerfully
of the plant, and possessed of a potention quality, whilst
the remaining leaves are insipid and inert; but if the same
liquor be again distilled with fresh leaves, it receives all the
aroma of this second quantity, becomes proportionately
stronger, and acts with more energy on the living body;
and thus by repeating the proceses, so much of the aroma
is condensed into a small bulk of water, that the peculiar
qualities of laurel may be exhibited in the most striking
manner, unnumbered with the comon vegetable materials
of which the leaf itself is composed.

The extraction of the aroma of plants is the basis of the
art of perfumery, an art in which there is much room for
the exercice of skill and ingenuity, and to the perfumers at least
it is one of the mott able branches of technical che-
mony. We have mentioned that the aroma of some ex-
quately scented flowers, such as the tuberose, jasmine, or
honey-tackle, though much potent to the sense, is of so ex-
tremely volatile a nature that it cannot be prepared by
common distillation with water; and if it does reside in an
effental oil, the quantity of that oil is so minute as not to
be extracted in the usual proceses. The perfumers have
therefore adopted a very ingenious method of fixing the
aroma in expressed oils without the affinity of any but the
gentlest heat. The oil which is used is ether oil of
ben or the purest olive oil, both of which are entirely scen-
tless. The prococes is the following: the flowers whose
aroma is to be extracted, the jasmine flowers for exmple,
are thickly spread upon flakes of wool, previousy soaked in
in the fixed oil, then are inclosed in tin boxes, and suffered to remain till the flowers begin to decay and lose their texture and colour. They are then removed, fresh flowers are added, and the maceration repeated till the fixed oil becomes entirely impregnated with the balsamic scent. The wool is then pressed, and the fragrant oil separated from the flowers is put in closely-flapped bottles, and sold under the name of Balsam of Ambergris, or whatever other flower was employed. Care is taken during the operation to pick the flowers carefully. These effluves therefore consist of a fixed oil saturated with the aroma of the plant, and if these effluves are digested in pure alcohol, the oil remains insoluble in this liquid, but yields to it the aroma; and thus the scent alone is transferred to the spirit. By this method a spirituous water is prepared for the toilette, scented with these delicate and exquisite perfumes.

The chemical nature of aroma may be considered as still unknown to us: that is to say, we are still ignorant whether the powerful scent of a plant resides in some substance fitted to do the scents of nature as to have eluded our research, or whether it is only an inherent quality in some known part of the plant (and if this is the case, probably it is the essential oil), which by being volatilized in the air is able to reach our olfactory organs.

Several writers have brought the influence of the inflammable gas, which, in fulvous evolutions, is often found to hover round the fraxinella when in full blow, as an example of aroma in the purest form in which it is ever procured. This would certainly be an interfering subject for chemical examination, if we could gather ourselves that the means which chemistry affords were at all equal to the task; but what chemist could yet flatter himself with the hopes of discovering the nature and composition of the fixed air, of finding the means of separating the odorous principle of the fyringa that tickles with its fragrance, from the breeze that conveys it to his fences; or of distinguishing by chemical tests the inconceivably minute portion of the aroma of musk, that loads with its oppressive scent an extensive chamber, from the dreadfully active effluvia which spreads disafe and pellucide?

The most powerful argument in favour of the peculiar nature of aroma distinct from that of essential oil, seems to be the circumstance which we have just mentioned, namely, that the quantity of aroma emitted by several of the most fragrant plants, which is indicated by the extent of atmospheres saturated as it were with perfume, is not in the least degree commensurate with the quantity of essential oil which any proce of art can extract from them. We shall forbear, however, to enter further into this inquiry; but as we may surely infer from the examples of effluvia, of galvanism, and of contagion, that the organs of sensation in the living animal are more delicate analysers than the telts and re-agents of the chemists, they certainly ought to be considered as at least equally conclusive.

A very few words will be sufficient on the subject of the different species of aroma which have been supposed to be detected by various chemists. So many of the parts and products of living vegetables are in a certain degree volatile in an atmosphere of moderate warmth, that the aroma which is equally volatile may readily combine with all or any of them. The gas of the fraxinella has been already mentioned as one example of gaseous aroma; the pungent vapor of the crucifolium plants has been found by later experiment to contain fulminating hydrogen, which probably affords the volatilization of the aroma, and furnishes another example of the gaseous. The watery aromas and the essential or oily aromas are almost indistinguishably intermixed in the products of the distillation of plants, in the old methods of obtaining the spiritus rectus, which have been already described. All the pure essential oils also contain aroma as a heterogeneous ingredient, though the intensity of this principle varies not only in different oils, but in the same species at different seasons; and, as we have mentioned, is almost entirely lost by long exposure to the air; but whether this change takes place by an actual loss of the aromatic principle, or by some internal chemical change, has not yet been ascertained. Lastly, various odorous plants yield an aromatic liquor which is slightly acid; the nature of this acid is not sufficiently known, but it has been supposed to be similar to the balsam. Some further notice will be taken of this subject under the articles belonging to vegetable matter, and that of Vegetable Analysis.

Aroma is by some particularly applied to denote myth. Aroma Germanicum, is a denomination given by Plutarch to clematris. Some writers give the title aroma Germanicum to juniper berries, on account of the great clemm that are in many of that, for their spiny, warm qualities; in which respect they are by many preferred to gin- her itself. Aroma philothorum is used by some for edon. Others take the appellation of aroma philothorum to Para- celus's amphi.

AROMATA, in Ancient Geography, a mountain of Afa Minor, in Lydia. Strabo.

AROMATA, Gardefan, a promontory and town of Ethiopia. It was, according to Ptolemey, the most easterly point of Africa. Here terminates the kingdom of Adel and the Barbarian of the Peribus; and here the coast of Ajam or Azaria commences.

AROMATIC, Aromaticus, is underfoot of a drug, plant, or the like, which yields a brisk fragrant smell, and a warm spicy tate.

The word is formed of ozym, which is compounded of oyi, very, and oym or oym, smell.

Aromatic Plants, in Gardening, are such as possess a fragrant aromatic flavour, combined with a strong odoriferous smell in many of the kinds. Many of these plants are proper to the kitchen-garden, being employed as favour sweet herbs for various culinary purposes; and some of them are likewise employed for medicinal and domestic uses. The principal sorts necessary to be cultivated in the garden, as aromatics, are the following, being species of several different genera. They conff, according to the authors of the General Dictionary of Gardening, of under-thrubby and herbaceous perennial's of many years duration, and of annuals and biennials of only one or two years continuance, which of course require to be raised every year or two from seed.

These are of the first kind: rhumus, or thyme; s gardia, or fage; satureja, or winter savour; origanum, or pot marja- nam; origanum, or winter sweet marjoram; hyssopus, or hyssop; rueta, or rue; rosmarinus, or rosemery; lavandula, or lavender. The above have abiding tops, and continue furnished with leaves, in most ales, all the year round. But the following are herbaceous, and renew their flakks, and some of the other parts, every spring and summer: mentha, or mint; melissa, or penny-royal; melissa, or baume; anethum, or fennel; tarchnium, or tansy; artemisia, or tarragon; anethum, or cham- molou; mentha, or peppermint; kelytrium, or kalytr.

These are of the second kind: eryngium, or sweet mar- joram; satureja, or summer savour; fandilia, or chervil; anethum, or dill; calendula, or marigold; oculum, or basil; apium, or parley; biennial, carum, or caraway; pungnella, or anise; angelica, angelica, biennial-perennial.

Among the perennial kinds, the principal culinary or pot-herb
pet-herb aromatics are thyme, fage, winter savory, marjoram, mint, penny-royal, tansy, tarragon, and fennel.

The others are not used as kitchen or culinary aromatics, but mostly for domestie occasions, as hyssop, balm, chamomile flowers, lovage, rue, and rofemary. And for simple medicinal purposes in a family; the peppermint for distilling; also the lovage and penny-royal occasionally for the same purpose; and the lavender for its flowers, both to distill for lavender water, and to lay among clothes to give them a sweet and agreeable scent; some forms of fage, common mint, and balm, are also distinguished by way of tea; and young green mint and tarragon often in salads. But among the annual and biennial aromatics, the sweet marjoram, summer savory, chervil, diit, marigold, bafli, parsley, and coriander, are the principal sorts to cultivate for culinary ufe, &c. The caraway and anife are cultivated in fome inftances for seeds, both to use in the kitchen, and for distilling; also sometimes the coriander feed, but more generally the two former; and the angelica, principally for the young tender shoots of its falks which are used in confectionery, to candy as a vegetable sweetmeat, and the feeds for medicine; fome of these annual aromatics are also in fome cafes used to give flavour to falls, as chervil, coriander, bafli, &c.: the young leaves being used in fmall quantities to mix with fome principal failed herbs. See the defcription of each under its respective genue.

All of them, except the bafli, are mostly of hardy growth, fo as to thrive in any common foil and fitation. The perennial sorts continue severall fairs in the fame plant, among which fome are durable, both in root and top, and remain green for ufe all the year, as thyme, fage, winter savory, marjoram, hyfop, rue, rofemary, &c.; the others are perennial only in root, and annual in falks, as the minis, penny-royal, tansy, tarragon, fennel, chamomile, &c. and furnish their respective produce for ufe only in the spring, summer, and autumn.

All the perennial aromatics are eafily raised, either by flips, off-fets, putting the roots, or by feed, and may be planted in fpring, summer, or autumn, in beds or borders at from fix to ten or twelve inicks affunder; but the annual and biennial kinds, continuing in the former only one fearon, and in the latter only til the second year, muft be raised every year or two, from feed in the fpring, in any compartment or common earth in the open ground, except the bafli, which being tender, muft be raised in hot-beds, in order to be transplunted in May or June; molt of the others generally remain where fown in the natural ground, but may be occasionally transplunted, the sweet marjoram and summer-savory in June, &c. and likewise the angelica, as being of large growth, in fummer. As fome of these only afford their full parts at particular fasons, as point, balm, penny-royal, tarragon, fweet marjoram, &c. they fhould be cut and preferved at fuch times for winter ufe, as about July and August. But for the marjoril, chamomile flowers, and thofe of lavender, as well as fage, tops, marjoram, hyfop, and fuch like, which often fland the winter, autumn may be better, as they will then be ready in cafe of a fevere winter. Parfley generally furnishes proper supplies of green leaves all the year; bafli and dilly only in fummer; chervil and coriander, principally in fummer and autumn, of the spring and fummer fowings; or if fome of each be also sown in August, they will continue green all winter, but the coriander will require a little protection in that fefon; and the caraway, anife, and angelica continue only in fummer and autumn.

In regard to the general culture of these plants, the perennial sorts being planted in beds or borders, continue there, Vol. II. as has been observed, several years, and only require to be kept clean from weeds in the fummer and autumn, and to be cut down and the decayed flalks removed at the latter fason; and in fpring to give the beds, &c. a neat deftriming by clearing off all weeds and litter, and then lodenning the ground a little between the plants; and in fome cafes running kinds, as mint, &c. to spread some earth thinly over the general furface; and when any particular sorts appear in a ftringy manner, to make a fresh plantation in the proper feron; as to the annual sorts, they only require to be kept clear from weeds during their growth and continuance, and that fresh supplies be raised every year from feed.

Aromatic Confection. See Confection Aromatic.

Aromatic Powder. See Pulvis Aromaticus.

Aromatic Spirit. See Aromatical Preparations.

Aromatic Tincture. See Tinctura Aromatica.

Aromaticus Calamus. See Calamus.

Aromatics, in Pharmacy. The Materia Medica contains a number of vegetable substances which possess a fragrant penetrating smell, a strong pungent taste, and a considerable stimulating power on the fytlem in general. These are called aromatics, and their characteriftic properties appear to depend chiefly, if not entirely, on an effential oil, which, when extracted from the vegetable, exhibits all its aromatic power in a very concentrated form. The aromatic property is found in combination with a variety of other vegetable principles, many of which modifies its effects on the constitution. The fimple operation of the aromatic principle appears to be diminifhed in a considerable degree; but the effet of feveral of the effential oils differs entirely from that produced by common stimulants, that we cannot include these substances under a fingle claffe without very great limitation.

As the claffe of aromatics is distinguished entirely by certain properties of smell and fitle, in each of these circumstances it approaches by infensible gradations upon the limits of other claffes.

The aromatic or fragrant smell of nutmeg, peppermint, or rofemary, would be denied by none; but the strongly odorous or gravolent fcent of wormwood or rue would be classed by many organs with the fettled; the odorous principle, however, in each of these fubstances appears to refile in the effential oil. In tafe, likewise, the aromatic, when powerful, proceeds to the acrid, and all the effential aromatic oils, when uncombined, produce very acid, and sometimes even caufetive or corrosive effects on the tongue, fo as to defroy the furface of the part which they touch, even by a very fhort application. The vegetables, or parts of vegetables, that contain the aromatic principle, are chiefly the following.

1. The Spices, thofe exquisite productions of the tropical region, which, besides being highly useful in medicine, form the moft grateful condiments for the table. The power of habit in acquefiting the constitution to excefsive quantities of the hotfeft Stimulants, and to fubstances that produce powerful local effects, is in few inftances more flringing than in the manner in which these valuable vegetable productions are employed by the inhabitants of the countries to which they are indigenous. In many of the spice-bearing plants various parts of the fame vegetable are richly impregnated with the aromatic principle, as in the inftance of the mace and nutmeg, productions of the fame plant, or the leaves and bark of the cinnamon.

2. The aromatic barks and woods, such as the canella, orange peel, cists, and many trees of the fir tribe. In many of thofe the aromatic is combined with the astringent and the bitter principles, and this union is often of singular service.
service in the formidable bowel complaints so common in tropical climates.

3. The fragrant herbaceous plants, such as the lavender, mint, thyme, &c. Among this very extensive class of aromatic vegetables are included all the fragrant pot-herbs employed for culinary purposes in climates not blessed with the spices that require a burning fun. From this class also are procured several of the perfumes and other agreeable scents for the toilette.

4. The resinous aromatic, such as the Mucca balsam, myrrh, capra balsam, frankincense, Cinn turpentine, and many others. The strong smelling resins and balsams, when submitted to distillation, yield a very large quantity of essential oil in which their characteristic properties of small and taste reside, whilst the residue is hard, brittle, almost without odour, and impalpable. The gravorulent and sedentary gums have the same character.

The aromatics are used very largely in pharmacy in a great number of forms and combinations, both on account of their proper stimulating cordial properties, and as powerful auxiliaries in a variety of infirmities. Their strong and agreeable smell and taste render them peculiarly proper for concealing and correcting those of the more nauseous and unpalatable medicines. As the essential oil to which the aromatics appear to owe their properties is soluble largely in spirit of wine, and partially in water, they are very conveniently employed under the forms of Distilled Spirits and Distilled Waters.

AROMATIC, in Ornithology, the Gmelinian name of the species of Columba, or pigeon, called by Buffon, Columba viridis Amboinensis; le pigeon verd d'Amboine, by Buffon; and aromatic pigeon, by Latham; from the latter of which Gmelin adopts the name aromatica. It is, as the synonyms imply, a native of the island of Amboyna; and is about ten inches and a half in length, or the size of the common turtle. The general colour is olive-green; back bay or cheetuff; on the wing a double bar of black, edged with pale yellow; quill feathers black, with yellowish margins. Gmel. &c. The bill of this bird is greenish; the upper part of the head is grey, darkish behind; the sides, throat, neck, breast, belly, rump, upper tail coverts, and tail, olive-green, but inclining to yellow on the neck and breast; the under parts of the tail black at the base, and dirty white at the end; the under tail coverts dirty yellowish white; wing coverts, like the back, cheetuff; and the legs and claws either grey or red; for Dr. Latham describes them of a grey colour, and in Les Planches duves of Buffon, they are painted red.

AROMATZ, in Geography, a town of France, in the department of Jura, and chief place of a canton in the district of Orgelet, fourteen miles south of Orgelet.

ARON, Peter, in Biography, a voluminous writer of music in the sixteenth century, was a native of Florence, of the order of Jerusalem, and a canon of Rimini. He appears to have studied music as a profession under the patronage of Leo X., in whose pontificate he was admitted into the papal chapel at Rome. His most considerable work, in which there is little that is new, was intitled, "Totentanz della Musica," and first printed at Venice in 1533, and with additions in 1539. This is divided into two books: the first containing a penurious treatise, an account of its inventors, definitions of terms, &c.; the second, an impartial account of the genera of the ancient, a decalogue or ten precepts concerning counterpoint, an explanation of proper terms, and directions for dividing the monochord, upon the principles of Guido Arctino. Burney's Hist. of Mus. vol. iii.

ARON, in Geography, a town of Peræa, in the province of Iraq, two leagues from Cashan.

ARONA, a small town of Italy, in the Milanese, belonging to Piedmont; seated on the side of a hill, near the well known lake of Maggiore, the environs of which are exceedingly fertile, and supplies wines that are much valued. Above it rises a ruined castle: two promontories project into the lake at this spot; the eastern is crowned with the castle of Anglona, and gives name to this valuable province, which, in 1397, was erected into a county by the emperor Wenceslas, and has since been transferred to the king of Sardinia. In doubling the promontory of Arona, the lake again subverts, and forms a bay.

ARONABAD, a town of Deccan, in the province of Iraq, twenty leagues south of Hiphah.

ARONCHES, a town of Portugal, in the province of Alentejo, walked and defended by a castle, and containing about 620 inhabitants; 65 miles tall of Lisbon. N. lat. 38° 56'. W. long. 6° 14'.

ARONDE, a river of France, which runs into the Oise, opposite to Compaigne.

ARONDELA, in Fortification. See Doved-tail, and Queue d'Arondre.

ARONDELLE, and Harondelle, in Ornithology, the French synonymous names of the Sterna tribe; terms of fast-fallowers of English writers. See Sterna. The term Arondelle is also applied in a general manner to the species of Trigla described by Linneus under the name of volitans. This is one of the flying-fishes of our naturalists; and in the classification of Natural History by Laëetpe, forms a new genus, which he called Doliophytere. See Trigla Volitans.

ARONIA, in Botany. See Orontium.

ARO Orbis. See GALENGAL.

AROOL, in Geography, a town of the Russian empire, in the Ukraine, on the river Ossa, eighty leagues north of Moscow. N. lat. 51° 43'. E. long. 58° 13'.

AROSSI, a territory of Abyssinia, being the southermost division of Mahala, on the west side of the Nile, inhabited by the Abyssinians, a kindred of the Agow. It is bounded on the north by the river Kelti, and on the south by the Alfar; the Arossi running through the middle of that district. This little territory is described by Bruce (vol. iii. p. 550), as by far the most pleasant which he had seen in Abyssinia; and perhaps, he says, is equal to any thing which the east can produce. The whole is finely shaded with the acacias, or Egyptian thorn, that yields the Gum Arabic, which feldom rises above fifteen or sixteen feet high, and then spreads wide at the top, so that the branches of different trees touch each other, and under a vertical fun afford a cool, delicious shade. Below these trees the ground is chiefly covered with lupines; and wild oats grow up spontaneously to a prodigious height and size, and have, when ripe, the appearance of canes. The inhabitants make no use of the grain, though the face of the meal, when made into cakes, is very good. The soil of this country is a fine black mould, like that of our gardens. Arossi is finely watered with small streams.

AKOPI, a term used by Paracelsus, to denote a medicine; made of the uppers of the thorns, and divided into the human body, in which limestone, arophi amounts to the same with lithontriptis. Van Helmont affirms us, that he was posseted of the arophi; and from his account, it seems to have been a preparation of croffon and rye-bread, digested with spirit of wine, in a horrito-dum heat, and at length distilled. Vide Croflein. In Ephem. Acad. N. C. dec. 1. an. 4. obf. 109.
ARPAS, or Parades, is also a name given to a kind of chemical flowers, elegantly prepared by sublimation, from equal quantities of lapis hematitius and ful amoenus; said to be of great efficacy in quanrant agues, the phlebotomus, and hypochondriacal diseases. This is also called aroma phosphorina.

ARPIS is also used to denote Mandragora.

AROSAY, in Geography, a town of the East Indies, on the coast of the island of Madura, near Java. S. lat. 9° 30'. E. long. 114° 30'.

AROSLA, Western. See Wisteros.

AROSLA, Egean, or Osra Aros, the ancient name of Upsala.

AROSIS, a river of Persia, which bounded Persis on the west, and separated that province from Susiana.

AROUANS, one of the islands which are near the mouth of the river of the Amazons in South America.

AROU-HARISL, in Zoology, according to Tielenot, the name of the Rhinoceros in the East Indies.

AROUKORTEKEN, in Geography, a country of Tartary, near the great wall of China.

AROURA, a Grecian measure, of fifty feet.

AROURS, was more frequently used for a square measure, the half of the plethron. The Egyptian aroura was the square of a hundred cubits. Archuth. tab. 9.

AROW, ISLANDS OF, in Geography, a cluster of small islands in the Indian ocean, situate north-east of Timorland, and nearly south of the coast of New Guinea. South lat. from 5° to 7°. E. long. 137°.

AROW, a river of South America, flowing from the lake Cultipe in the province of Paria, and discharging itself into a river of this name.

ARPAD, ARADUS, or Rovanhalde, in Ancient Geography, an island situate on the coast of Syria. See ARADUS and ROWHADUS.

ARASAGUS, or rather HARASAGUS, formed from άρας, τόπος, I. staed, in some ancient inscriptions, signifies a person who died in the cradle, at least in early youth. The Romans made no funeral for their arasag. — They neither burnt their bodies, nor made tombs, monuments, or epitaphs for them, which occasioned juvenal to say,

"——Terra clauditur infans,
Et minor igne rogi."

In afterwards it became the custom to burn such as had lived to the age of forty days, and had cut any teeth; though these also called άρας, τόπος, q. d. τόπος, ravished. The usage seems to have been borrowed from the Greeks; among whom, Eutathius affirms it, was the custom never to bury their children either by night or full day, but at the first appearance of the morning; and that they did not call their departure by the name of death, but by a foster appellation, γιορίς, γιορίς, importing that they were ravished by Aurora, or taken away to her embraces.

ARPAIA, in Geography, a town or village of Italy, in the kingdom of Naples; and Principato Ultra, six miles well-south-well of Benevento; supposed to be the ancient Caudium.

ARPAION, or ARPASJOU, a town of France, in the department of the Seine and Oise, and chief place of a canton, in the district of Corbeil; 10 miles south of Paris. The place contains 2,093, and the canton 13,366 inhabitants; the territory includes 147½ square kilometres and 19 communes.

ARPA-SOU, a river of Peria, between Erivan and Tabriz.

ARPEGGIO, ARPEGGIATA, in Magg., is playing the sounds of a chord in a rapid manner upwards and downwards; after each other, instead of striking them together. In doing this on keyed instruments, the fingers of each hand must be kept on to preserve each sound, till its turn comes for the key to be struck again. The word arpeggio is derived from Arpa, the harp; upon which instrument the sounds of a chord are usually struck in succession, by beginning at the lowest. There are as many kinds of arpeggio as sounds in a chord, or changes in their succession. The violin family having but four strings, and the viol family fix, can only arpeggio four or six sounds; and from the convexity of the bridges of these instruments, there is no other way of playing chords with a bow, but in arpeggio.

The abbé Peyton says very truly, that the harmonies arising from a single string or four, when first discovered, gave birth to arpeggio; or perhaps long before that, it was suggested by the lection of the cænon, or division of the mono-chord. The musical reader will find the examples of several kinds of arpeggio in the Mentor Plates.

APENBURG, in Geography, a town of Germany, in the circle of Upper Saxony, and old mark of Brandenburg, nine miles south of Saltzwedel.

ARPENT. See ACRE.

ARPHAXAD, in Scripture History, the third son of Shem, and father of Salah, was born in the second year after the flood, A. M. 1658, and died A. M. 2906, aged 438 years. Gen. xi. 12, &c. He was distinguished above the rest of his brethren, by having the patriarchal line continued through him. Arphaxad is placed by some in Arrapachitis, a province of Syria, towards the north part of the country; but others fix him, with his family, in Chaldea, where we find his descendants till the time of Abraham. Some, who confess as one and the same person Arphaxad and Cainan, who is inserted between him and Salah in the Septuagint version, suppose him to be the founder of the monarchy of China. Some Mahometan authors make Arphaxad both a prophet and an apostle, and judge the chief sovereignty over the nations of the world in his descendants.

ARPI, in Ancient Geography, a town of Italy, in Apulia between Luceria and Sp同志. It was anciently called Argos Hypium, and afterwards Argyrippa, the capital of a kingdom founded by Diodemus after the siege of Troy; in the time of Livy it was large and populous, and furnished Hannibal with 3000 armed men. It is now in ruins, about fourteen miles west of Manfredonia, in the province of Catanata, and kingdom of Naples.

ARPII. A people placed by Ptolemy in Lower Myacia. They inhabited the coast at the northern mouth of the Æger, at the entrance of the Bosphorus. Their capital was called Arpis.

ARPINAS, JOSEPH CESAR D', in Biography, commonly called Jofepin, a famous painter, was born at the castle of Arpinas in Naples, in 1560. After receiving some instruction from his father, who was an artist, he was sent, at the age of thirteen, to Rome, where he waited upon the painters in the Vatican, and at intervals sketched figures on the pilasters, which adorned the other artists. Under the patronage of Gregory XIII, he enjoyed the means of further improvement, by being employed first in the ornaments of the Vatican, and afterwards in history painting; and his bold and free manner was much admired. At Naples he painted the cupolas of the Chartreux; and returning to Rome in 1560, he began to paint the great hall of the capitol in fresco. Clement VII, distingushed him by his protection, and made him a knight of the order of Christ; and in a journey to France with cardinal Aldobrandini, in 1600, he was created knight of the order of St. Michael, by Henry IV. Arpinas, notwithstanding the honours that were conferred upon him, was of a discontented and querulous temper; and fell out both with Caravaggio his rival, and with Anibal.

Carachio.
Caraccho. He declined a duel with the former, because he was not a knight; and willing to measure swords with the latter, Caraccho preferred his pincel, and said to him, "With this I d. he you." He died at Rome, at the advanced age of eighty years. Notwithstanding the fire and elevation which distinguished some of his compositions, his colouring was cold, and his attitudes stiff and forced, to that his name now fearfully exists, in the list of great artist. Although his school was much frequented, he seems to have left no eminent disciples. His best performances are the pieces of Roman history in the capitol; and one of his capital works is his "Battle between the Romans and the Sabines." Arr Open also engraved in aqua fortis. Nouv. Dict. Hist.

ARPINO, in Geography, a town of Italy, in the kingdom of Naples, and county of Lavora, ten miles north of Casano. This was the ancient Arpinum, situate to the left of the river Liris, and south of Sora, and famous for being the birth-place of C. Marius and Cicero, two citizens, who, as Pompey said in a public speech, each in his turn preferred Rome from ruin. It was a city of the Samnites, which, upon its submission to Rome, acquired the freedom of the city, and was infected into the Cornelian tribe. The territory of Arpinum was rude and mountainous, and Cicero (Ad Attic. n. 11. ) applies to it Homer's description of Ithaca, Od. iv. 27:

"The rough indeed, yet breeds a generous race."

Cicero's family seat was about three miles from the town, in a situation extremely pleasant, and well adapted to the nature of the climate. It was surrounded with groves and shady walks, leading from the house to a river, called Edeumnes, which was divided into two equal streams, by a little island, covered with trees, and a particular contrivance both for skirling and exercise, whether Cicero used to retire, when he had any particular work on his hands. "The clearness and rapidity of the stream, murmuring through a rocky channel; the shade and verdure of its banks, planted with tall poplars; the remarkable coldness of the water; and above all, its falling by a cascade into the nobler river Liris, a little below the island," give us the idea of a most beautiful scene, as Cicero himself has described it. The house, Cicero says, was small and humble in his grandfather's time, according to the ancient frugality, like the Sabine farm of old Curius; but his father beautified and enlarged it into a spacious and handsome habitation. It is now possessed by a convent of monks, and called "the villa of St. Dominic." The villa of Mari, was about twelve miles dilant from Arpinum; and on the spot now stands the only convent of the aulter order of La Trappe in Italy. Its present name is "Casa Mari."

ARPI. See ARPI.

ARPONIUM, in Ancient Geography, a town of Italy, in Magna Graecia, which, as Diodorus Siculus informs us, was pillaged by the Etrurians, during the war of the Ixian. ARQUA or Arracan, in Geography, a village of Italy, in the Pisan territory, about three miles from Batagia, famous for having been the read-nace and burial-place of Petarch. N. lat. 45° 43'. E. long. 11° 43'. There are two other places of this name; one in the March of Ancona, on the frontiers of Abruzzo, and another in the duchy of Milan, situate on the Scriva.

ARQUE, a town of France, in the department of the Aisne of Calais, and chief place of a canton in the district of St. Omer, half a league south-east of St. Omer.

ARQUEBUSADE W ATER. See AQUA Vulneraria.

ARQUEBUSS. See HARQUEBUSS.

ARQUEMON, in Geography, a river of France, which passes by Jugon, in the department of the north coasts, and runs into the English channel about 13 miles north of that town.

ARQUES, a town of France, in the department of the Lower Seine, and chief place of a canton, in the district of Dieppe, one league south-east of Dieppe. It is built on a river of the same name, which runs into the English channel near Dieppe.

ARQUES is also a town of France, in the department of the Aude, and chief place of a canton, in the district of Limoux, three leagues south-east of Limoux. The place contains 488 and the canton 3743 inhabitants: the territory includes 277 kilometres and 36 communes.

ARRA, in Ancient Geography, now called Maura, a town of Asia, in Syria, which was formerly large and well-peopled, but is now reduced to a small place under the government of Aleppo; the territory of which is very fertile in grain and good fruit.

ARRA-BIDA, in Geography, a height mountain of Portugal, in Alentejo, on the frontiers of Algarve, forming part of the Soria or mountain of Caledram, and seeming to be a branch or continuation of the Spanish chain to the north of Madrid, called by some the mountains of Idabads, which enters Portugal near the town of Guarda, and pursues its former course to the south-west. It is chiefly calcareous, and affords beautiful marble.

ARRACAN, Arrakan, or Arrakan, a maritime country of the north points in the Gulf of Bengal, from the Chindee isles, borders on the south-east province of British India, and is separated from the Indian empire by a range of lofty mountains called Anoupee, and bounded on the north by the Murr, or the country of the Muggaioos, the Castle of major Rennell, on the south by the flat lands of Pegu, and on the west by the bay of Bengal. This country is called by the Bengal Hindoos, who have fettled it, Roffaan, whence, probably, Rennell has derived the name Rohan, which he has given to it. The Mahometans fettled in Arrakan call it Roving; and by the Persians it is denominated Rakan. The proper natives of the country, who use a dialect of the Birmah language, call their country Yee-Kein; and by the people of Pegu, the inhabitants are named Takain. From Isbambah, N. lat. 24° 20'. E. long. 91° 55'. the coasts of Arrakan and Pegu take a south-west coast line to Cape Negrais, the extreme point of Pegu to the south-west, in N. lat. 16° 6' and E. long. 94° 27'. Pennant (Outlines of the Globe, vol. iii. ) says, that the kingdom of Arrakan stretches along the coast to an extent of 200 miles; others make it length above 500 miles, and its breadth from 20 to 200 miles. Its topography, however, is still obscure. According to Symes (Embassy to Ava, vol. i. p. 243, &c. ), Arrakan, or Yee-Kein, stretches south-west coast from the river Naff, the boundary that divides it from the territories of the Indian company, as far as Cape Negrais, where the ancient Pegu empire commenced. "The range of lofty mountains called Anoupecoromion, or the great western hilly country, nearly encircles it. From the quarter of Baffin and Negrais, Arrakan can only be invaded by water, through the many rivers that interfice the country adjacent to the sea. From the side of Chittagong, entrance into Arrakan must be effected by a march along the sea-beach, which is interrupted by several channels, that chiefly oveer their waters to the action of the tide. Arrakan thus displays a great space of coast, very disproportionate to the internal extent. "Cheduba and Ramree, called by the Birmans Magou Kion and Yamgee Kion, are extensive and highly cultivated islands, which, with Arrakan and Sandoway, form four distinct provinces, and comprehend the whole of the Arrakan empire. The ancient government
government of Arracan has never been so completely conquered as to acknowledge vassalage to a foreign prince. It experienced, however, in the two last centuries, the usual convulsions to which all states, and those of the eastern world in particular, are liable. The Moguls on the west, and the Peguans on the east, had, at different periods, carried their arms into the heart of the country. The Portuguese, sometimes as allies, and at other times as open enemies, gained an establishment in Arracan, which decayed only with the general ruin of their interests in Aia. Arracan, however, though often exhausted, was never wholly consumed; it always rose from its own ashes, a free and independent nation.

In 1783, Mind-ragee, who held the throne of the Birman empire, feized the country, and annexed it to the conquests of his father Alomprâ, consisting of Pegu, and the coast of Siam, as far as the port of Merghî, in N. lat. 12° 20'. In this conquest, the booty most highly valued was an image of Gandma, the Boddhe of the Hindoos, made of burnished brass. There were also five images of Raknus, the demon of the Hindoos, of the same metal, and of gigantic stature; these were accounted valuable, as they were supposed to be the guardians to the sanctuary of the idol. All the spoils taken at Arracan were of brass, among which was a large gun, thirty feet long, two and a half in diameter at the muzzle, and the calibre ten inches; it was mounted on a low truck carriage, supported by fix wheels, and had several shot of hewn stone fitted to the calibre. The surrender of Che-dubs, Ramee, and the Broken Isles, followed the conquest of Arracan. Many of the Mughals, or ancient inhabitants of Arracan, so called from being subjects of the Great Mogul, preferred flight to servitude; and took refuge in the Dumbuck hills, on the borders of the province of Chittagong, and in the deep forests and jungles that skirt the frontier, where they formed themselves into independent tribes of robbers, that have since created infinite vexation to the Birmans, and to this day commit merceufes depredations on the persons and property of their conquerors. Many settled in the districts of Duca and Chittagong, under the protection of the British flag; whilst others accepted the oath of allegiance, and bowed their necks to slavery, rather than abandon their country and their household gods, to whom the sectaries of Budhoo are much attached. Arracan, with its dependencies, was afterwards constituted a province of the Birman empire; and a Maywoon, or viceroy, appointed to govern it. The reduction of Arracan was completed in the short space of a few months. The country is fertile, abounding with well-watered meadows and pellure lands; the soil luxuriant; the mountains are green through the year, though in winter, that is from August to October, the weather is for the most part wet and tempestuous; and the contiguous islands uncommonly fruitful. The population is estimated at between two and three millions. It produces great quantities of rice, coconuts, bananas, oranges, and many other kinds of excellent fruit. The rice is produced in such abundance, that it might be improved by proper policy into a lucrative branch of commerce. The trade of Arracan has never been so very considerable; it is confined to falt, bees' wax, elephants' teeth, and rice. Articles of foreign importation are introduced into other parts of the Birman empire by way of Arracan, and carried over the mountains on the heads of coolies, or labourers; such as European broadcloth, hard-ware, coarse Bengal muslins, Coflembugaik handkerchiefs, china ware, and glass; coconuts are also brought from the Nicobar islands, and bar a very high price; and merchants carry down silver lace, precious stones, and some other articles, to no great amount. Pol-

fees of Arracan and the adjacent islands was a very desirable acquisition to the Birmans, as it afforded protection to their boats, which, navigating in the north-west monsoon through the channel and along the coast, make an annual voyage from Bussien, Rangoon, and Martaban, to Chittagong and Calcutta, where they dispose of the produce of their countries, and in return bring back cloth and commodities of India. Elephants and buffaloes are very numerous, and are used instead of horses. The forests are infested with tigers. The natives of Arracan do not differ from those of China and Siam, except in their colour, which is somewhat blacker. They are fond of large flat foreheads, and, in order to obtain them, they apply a plate of lead to the foreheads of their children immediately after their birth. They have large open nostrils, small sparkling eyes, and ears so long that they rest upon their shoulders. They eat without difficulty mice, rats, serpents, and pottered fish. Their women are tolerably fair, and their ears equally long with those of the men.

*See Birman Empire.*

**Arracan.** Arracan, the capital of the above country, is seated most singularly in a valley, surrounded with vall and craggy mountains; and these are afforded by art, so as to be made the most sublimal fortifications. The entrances are cut through the solid rock, as are also the gates of the city. The precipitous face of the mountains serves for walls; besides which, it has a citadel and other artificial defences. The city is said to be fifteen miles in circumference, and to contain 160,000 inhabitants. The royal palace is very magnificent, and highly adorned and enriched with works of masy gold. Pennant.

**Arracan** is also the name of a river, which divides the above country by several canals, and discharges itself into the bay of Bengal, about fifty miles below the capital. Its banks are bounded by woods and plantations, that are animated, says Pennant, by the gambols of the monkey tribe, or the gay flights of numbers of peacocks. Dr. Buchanan says (Symes's Embassy to Ava, vol. ii. p. 413), that the Arracan river is not so considerable as has been supposed, but takes its rise in hills at no great distance to the north. He adds, that the river coming from Tibet, which is supposed to be that of Arracan, is in fact the Keendum, or great western branch of the Ava river. Pennant (Outlines of the Globe, vol. iii.) says, that this river is the Tocofanee of Potemny, and that it is faintly traced beyond the capital. A few miles below Tellakee, at the western foot, says Symes (Emb. to Ava, vol. i. p. 244.), the river, till then a streamlet that rives in the hills, becomes navigable from the influx of the sea; in two tides a boat reaches the foot of Arracan. From the foot to the sea, the river expands into a noble sheet of water, well adapted for trade and the reception of shipping.

**Arrachee,** in Heraldry, is underlord of representations of plants forcibly torn up by the roots, with their roots hanging at them.

In this figure, arrachee amounts to the same with what is otherwise called erubens, or erupel. *Nib. Her.*

**Arracife,** Cape of, in Geography, is situated on the coast of the Cufres in Africa, about sixty leagues from the Cape of Good Hope.

**Arracife,** a port-town of Brazil, in the captainship of Pernambuco, esteemed the strongest in Brazil. The port consists of a suburb, in which are some large houses, and repositories for stores; and it is built upon a narrow passage, with a castle to defend the entrance. Nevertheless, James Lancaster, with seven English vessels, made himself master of the town and castle in 1597, and obtained immense plunder.
ARRAGON, derived either by corruption from Tarraconensis, the name of the Roman province of which it formed a part, or from the little stream called Arragon, which falls from the Pyrenees into the Ebro, is a province of Spain, bounded on the north by the Pyrenean mountains, on the west by Navarre and the two Cathies, on the south by Valencia, and on the east by part of Valenza and Catalonia. Its extent from north to south is about 210 miles, and in breadth about 120. The country is, in general, mountainous, dry and sandy, badly cultivated, and thinly peopled; but it is intersected with delightful fertile valleys, which are well watered, and produce corn, wine, oil, flax, fruits of different sorts, and some flax. Aragon breeds a great number of sheep and cattle; its rivers abound with fish, and its forests with game. The mountains are said to have formerly yielded gold, silver, and other metals; but they now afford, probably on account of the indolence of the inhabitants, little besides iron. The principal rivers, besides the Ebro, which traverse the province from north-west to south-east, are the Cinca, anciently Cinga, the Gallego, the Huéca, Alcalat, Daroca, and Alcaniz. The principal inhabitants of this country, in ancient times, were the Celtiberians, and they have been always deemed active, hardy, enterprising, courageous, and fond of liberty, but proud and pugitive, and bigotted in their religion. Marcellus, after a short war, taxed them at 600 talents of gold. When they fell under the dominion of the Goths, they frequently revolted, and made valiant and repeated struggles for the preservation of their liberty. On the irritation of the Moors, these people retired into their inaccessable rocky mountains for the enjoyment of their freedom and independence; and there they erected, for their own security, a form of government, to which they submitted by common consent. Aragon was first erected into a kingdom by Don Sancho the Great, king of Navarre, who died in the year 1055, in favour of his son, Don Ramiro. He was succeeded by his son, Don Sancho Ramirez, who added to his own dominions part of Navarre, and obtained several advantages against the Moors of Saragossa and Huéca; but was at length mortally wounded at the siege of the latter of these places, in 1094. The kingdom devolved on his son, Don Pedro, who, after defeating the Moors in the plain of Alcaraz, took possession of Huéca, A.D. 1096. He was succeeded in the year 1104 by his brother, Don Alfonso, who, by the display of his martial virtues, obtained the surname of "the Warrior." Having reduced Tudela, and obtained a signal victory over the Moors, he laid siege to Saragossa, and compelled it to capitulate, after a long and obstinute defence, A.D. 1118. He dispossessed the Moors of several other strong places, and defeated them in several battles; but in his attempt to reduce Fraga, the capital of a Moorish government, he provoked an engagement, in which he was overpowered with great slaughter; and this defeat affected him so much that within eight days he died of grief. After his death the monarchies of Aragon and Navarre were separated; and Don Ramiro, brother to the late king, ascended the throne of the former kingdom. But in 1117, after a short reign, he abdicated the government in favour of Don Raymond, count of Barcelona, to whom he married his daughter Petronila. Don Raymond dying in Pedrigni, in 1122, was succeeded by his eldest son, Don Alfonso, who enjoyed the sovereignty of Catalonia, in conjunction with the realm of Aragon. Alfonso having, in 1166, confirmed the liberties of the clergy and nobility in an assembly of the states at Saragossa, soon after, viz. in 1169, collected a powerful army, commenced a war with the Moors, and drove them out of all the places which they held in that territory, which is now called Aragon. Alfonso closed a reign, rendered illustrious by many military exploits, at Perpignan, in 1166; and the crown of Aragon devolved on the son of his son, Don Pedro II.; who, in 1193, paid a visit to the pope at Rome, acknowledged himself a vassal to the holy see, and continued to pay an annual tribute of 250 double palfenes. His premature death, in an action with the papal troops before Muret, A.D. 1213, was followed by great confusion and tumult, both in Aragon and Catalonia; but at length his son, Don Jaime, was proclaimed and acknowledged as his successor. This prince, being threatened by the pope with excommunication for his vices, affirmed the oath, and actually embarked at Barcelona for the Holy Land, A.D. 1268; but he was driven back by a tempest, and returned to his own dominions. After a defeat by the rebellious Moors of Valencia, he fell sick, resigned the crown, took the habit of a Cistercian monk, and penitently bewailing the ill example he had given to his family and subjects, expired in 1276; upon which the crown devolved to his son, Don Pedro III. Pedro, having subdued the Moors of Valencia, and composed the tumults of Catalonia, engaged in an expedition against the Isle of Sicily, which he conducted with great spirit and success, and in consequence of which he was, with universal applause, proclaimed king of Sicily. The pope, Martin IV., who took part with his successor, Charles, excommunicated Don Pedro, and proceeded to give away his kingdom, as a fief of the holy see, to Charles de Valois, son of king Philip the Hardy, and to publish a croisade against the defaced king of Aragon. In 1284, the king of France took the croisade, and assembled a very large army in order to seize and secure the possession. During this contest, Don Pedro died, in 1285, and left the crown of Aragon to his son Don Alfonso, and that of Sicily to his second son, Don Jaime. Alfonso, having entered into a treaty for the marriage of princes Eleanor, daughter of Edward I. of England, was suddenly taken ill during the magnificent preparations that were made for this purpose at Barcelona, and died in 1291. His brother, Don Jaime II., succeeded him; and after having conciliated the affection of his subjects by many popular acts, he died much regretted, A.D. 1326. His son and successor, Alfonso IV., pursued the conduct of his father, and cloistered his life and reign, in the year 1356, much beloved and lamented; and on account of the gentleness of his administration, he was termed "The Kind." His son, Don Pedro IV., commenced his reign with all the avoiments of royalty; but protracted it to a very advanced period, and died in the year 1385, with the character of having been in many respects the wisest, and in many more the worst king that ever sat upon the throne; and of having been better obeyed, and much less beloved, than any of his predecessors. He was succeeded by his son, Don Juan, whose death, in 1395, occasioned great confusion in the
the kingdom of Aragon. After the death of his successor, Don Martin, duke of Montsalvan, there occurred an interregnum, occasioned by disputes about the succession of the crown. The titles of several claimants were examined by nine judges appointed for this purpose; and at length the majority determined in favour of Don Ferdinand of Callicue, who was the son of Donna Leonora, the eldest sister of the two late kings; and the reti also acquiesced. Accordingly, he was proclaimed king, A.D. 1142, and in 1143 solemnly crowned at Saragossa. At his death, in 1146, he was succeeded by his son, Don Alfonso V., who, in 1153, became sole and absolute master of the kingdom of Naples; and was afterwards esteemed the great arbiter of peace and war through all Italy. He died in 1168, as the greatest prince that ever sat upon the throne of Aragon (See Alfonsino V.). Don Juan II. succeeded to his hereditary dominions; and after a reign of 21 years, Aragon, with its dependent dominions, was united to the crown of Castile, A.D. 1479, under his son Don Ferdinand, who confirmed the laws and privileges of the kingdom of Aragon, in Saragossa, Barcelona, and Valencia.

ARAGONITE. In Mineralogy, Aragonite, Kirwan. Aragonit, Werner. The colour of this mineral is either greyish, or greenish white, or pale mountain green; in the center it is often of a violet blue, or brownish red. It occurs only crystallized; and its varieties may be referred to the following forms.

1. A perfect equidiagonal, six-sided prism (Aragonite primaticius of Kirwan). The crystalline prism is usually surrounded by a double rhombohedron. The faces of the double rhombohedron are equal, and correspond with the two sides of a diamond, and terminate the prism (Aragonite Cancille of Hauy). The crystalline prism is generally hexagonal, and sometimes concave. The mineral is vitreous, and varies from little shining to very brilliant.

2. A six-sided prism, two opposite faces of which are the largest, and correspond with the two sides of a diamond, and terminate the prism (Aragonite Cancille of Hauy). The crystals are small, or of moderate size, often grouped in crossettes; their faces are very rare and smooth, being generally hexagonal, or sometimes concave. The mineral is vitreous, and varies from little shining to very brilliant.

3. A rounded mass, deeply striated (Aragonite cylinder of Hauy). The crystals are small, or of moderate size, often grouped in crossettes; their faces are very rare and smooth, being generally hexagonal, or sometimes concave. The mineral is vitreous, and varies from little shining to very brilliant.

The fracture is lamellar, but often indeterminate as to piling into the imperfect conchoidal. The bluish of the crystals is always present in a distinct, minute, wedge-shaped concretion, which gives the fibrous appearance which this mineral is characteristic.

It is almost semi-transparent, and possesses a double refraction resembling calcareous spar; it is considerablv hard, brittle, and easily broken: fp. gr. 2.94.

4. Aragonite is extremely fusible with evaporations in nitrous or mineral acids. Before the blowpipe, it melts and cracks, and at length is calcined like calcareous spar; when pulverized and sprinkled on a hot coal, it gives out a reddish phosphorescent light.

This mineral was named by the celebrated Werner, because it was first discovered in Spain, on the borders of Aragon and Valencia, where it is imbedded in lamellar and fibrous gypsum; it has since been found in the Pyrenees, and at Leogam in the country of Salzburg, in a shattory argillaceous rock, or in quartz, accompanied by calcareous spar and pyrites.

The crystals belonging to the first variety, present occasionally a singular kind of composition, being found to contain internally a second prism, the axis of which crofles of the former nearly at right angles, and is engaged in its very fusion in such a manner as to produce no alteration in its external figure. This arrangement appears in the fracture of the crystal, at the crofles of the frize; or in a kind of mosaic, representing four triangles united round a common point, upon making a vertical section of the whole prism; of these triangles, two opposite ones are nearly colofured, and the other two are violet.

The repeated analyses of Klipoth, Vauquelin, and Thenard, have discovered nothing in the aragonite but lime and carbonate of lime, in the same proportions as calcareous spar; yet the crystalline structure of these two substances is wholly different. The primitive form of calcareous spar is a rhombohedron; the aragonite is divisible only in two directions; the inclination of the joints in the latter is about 116°, but in the former only 104° 28'; a circumstance worthy of special attention, as it is the only instance known in which the geometrical and chemical analyses of crystallized bodies are at variance. Mineralogie de Brochant, v. i. p. 576. Hauy Traite, &c. v. iv. p. 237.

ARRAT, in Geography, a town of Japan, in the province of Tootomi or Tsun-i.

ARRAIALTO pediicum, the ranging or arraying of foot-soldiers.

ARRAIGN, or Araign, in Law, signifies to fet a thing in order, or its place.

It is derived from the French arraisonner, i.e. "ad rationem ponere, to call a man to answer in form of law," which comes from the barbarous Latin adrationem, i.e. platicum.

In which sense, to arraign a criminal, is ponere eum ad rationem. Thus he is to be arraigned a witness of novel fact, and fix it for trial before the justices of the court. To arraign the affize, is to cause the defendant to be called to make the plaint, and to set the cause in such order as the tenant may be forced to answer to it. A prisoner is also said to be arraigned, when he is indicted, and called to the bar of the court, to answer the matter charged upon him in the indictment.

But no man is properly arraigned, except at the suit of the king, upon an indictment found against him, or other record, wherewith he is to be charged: and this arraignment requires, that the prisoner appears to be tried, and holds up his hand at the bar, for the certainty of the person, and makes a sufficient plea to the indictment. i. Hali. 262, 263. The prisoner is to hold up his hand only in treason and felony; but this is only a ceremony: if he own that he is the person, it is sufficient without it.

It was laid down in the ancient books, that the prisoner, though under an indictment of the highest nature, must be brought to the bar without irons, or any manner of shackles or bands; unless there be an evident danger of an escape, and then he may be secured with irons. But in Lay's cafe, A.D. 1725, a difference was taken between the time of arraignment, and the time of trial; and accordingly, the prisoner stood at the bar in chains during the time of arraignment. Prisoners are now generally tried in their irons, because taking them off is usually attended with great pain and trouble. When the prisoner is at the bar, and confesses that he is the person named, the indictment is to be read to him distinctly in the English tongue, that he may fully understand his charge. After which it is to be demanded of him, whether he be guilty of the crime, of which he stands indicted, or not guilty. By the old common law, the accolyti could not be arraigned, till the principal was attainted, unless he chose it, and waived the benefit of the law; in which case, principal and accolyti might, and may still, be arraigned, and plead, and also be tried together. But if the principal had never been indicted at all, had stood mute, had challenged above 35 jurors peremptorily, had claimed the benefit of clergy, had obtained a pardon, or had
 ARR

had died before attainer, the accourty, in any of these cases, could not be arraigned; for "non culditas," whether any felony was committed or not till the principal was attainted; and it might so happen, that the accourty should be convicted one day, and the principal acquitted the next, which would be absurd. The law full continues, that the accourty shall not be tried, so long as the principal remains to be tried hereafter. But by flat 1 Ann c. 9, if the principal be once convicted, and before attainer, i.e., before he receives judgment of death or outlawry, he is delivered by pardon, the benefit of clergy, or otherwise, or if the principal stands mute, or challenges punctuously above the legal number of jurors, to as never to be convicted at all; in any of these cases, in which no further trial can be had of the principal, the accourty may be proceeded against as if the principal had been attainted; for there is no danger of future contradiction. And upon the trial of the accourty, as well after as before the conviction of the principal, it seems to be the better opinion, and founded on the true spirit of justice (Pooler, 357), that the accourty is at liberty, if he chooses it, to controvert the guilt of the apprised principal, and to prove him innocent of the charge, as well in point of fact, as in point of law.

When a criminal is arraigned, he either stands mute, or confess the fact; which circumstances may be called "incidents" to the arraignment; or else he pleads to the indictment. For the law, as it formerly existed, and now subsists with regard to standing mute, see Mute. Upon the prisoner's simple and plain confession of the indictment, the court hath nothing to do but to award judgment; but it is usually very backward in receiving and recording such confession, out of tenderness to the life of the subject; and will generally advise the prisoner to retract it, and plead to the indictment. For another species of confession, see Approval. For the plea of the prisoner, or defensive matter alleged by him on his arraignment, if he does not confess, or stand mute, see Plea. For the solemnity of the arraignment, and trial of a prisoner, see Dall. c. 135, p. 575.

An attainer of high treason has been revered for the omission of an arraignment. In an action of slander, for calling one thief, the defendant justifies that the plaintiff bible goods, and if he be taken therein; if it be found for the defendant, in D. R. and for felony in the same county where the court sits, or before the justices of assize, &c. he shall be forthwith arraigned upon this verdict of 12 men as on an indictment.

A R R A N, a province of Peris, situated between Georgia, Aiderbeizan, and Shirwan, and surrounded by mountains. A R A N, or Arr-an, i.e., the island of mountains, one of the Scottish islands, situated in the Firth of Clyde, between the main land of Aritherie and the coast of Kintyre, and forming part of the county of Bute. This island is about twenty-three miles long and nine broad, and contains about 7000 inhabitants, who chiefly occupy the parts near the coasts; the interior mountainous part being for the greatest part uninhabited. The chief place is the village of Ranza; and the parishes are two, viz. Kilbride and Kilmore. The principal mountains are Goatfall, Goatfield, Goolbhein, or the mountain of the widows, nearly 3000 feet high, composed of immense piles of morraine, cloathed with heaths and mosses, and inhabited by eagles and ptarmigans; Bon-bharrin, or the sharp-pointed; Ceum-na-Caillich, or the flap of the Carline or old hag; and Griann-Athlo, inferior to none in ruggedness. The lakes are loch Jorfa, where salmon come to spawn; loch Tana; loch Na-Jura, on the top of a high hill; loch Machairi and loch Knoecharai, abounding with large eels. The chief rivers are Abhan-mhor, Moine-mhor, Sfordroni mchare, and Jorfa, of which the two last are remarkable for abundance of salmon. From the mineralogy of this island, published by Mr. Jamfson in 1798. Sea, it appears to be a mountainous region; the southern parts, however, present low and cultivated grounds: the base is chiefly sand-stone and granite, the former traversed by veins of basalt. Near Lamish, and also near to Brodick wood, there is an extensive vein of pitchstone, of a greenish colour, and the black also occurs. There is also granite, composed of quartz, felspar, and hornblende; maccareous felinites likewise abound; but there is little coal. The bays of this island are those of Lamish, Brodik, and Ranua, where ships of any burden may safely ride in all weathers; and it is surrounded with fisheries of various denominations. The climate is severe; nevertheless in summer the air is debourious, and many invalids resort hither on that account, and for the purpose of drinking the whey of goats' milk. The men are strong, tall, and well made; they speak the Erse language; but have laid aside the ancient habit. Their diet consists chiefly of potatoes and meal, with an occasional addition, in winter, of the dried flesh of sheep or goats. Their farms are leased for nineteen years; and each farm is commonly possessed by a number of small tenants, who are jointly and severally bound for payment of the rent. The arable land is portioned out by lot, and to each portion or ridge the occupier annexes his mark: and this species of farm is called "run-rig," i.e., ridge. All the tenants join in ploughing. The pasture and moor-land annexed to each farm are common to all the occupiers. All the farms are open, and inclosures are unknown. The produce of the island is chiefly oats and barley; its live Rock blink-cows and other cattle, horses, sheep, and goats. Flags have been lately introduced. The herring-fishery is beneficial. The exports are black cattle, horses, and bar ley, herring mts., and thread formed of the fish that is low here. The women manufacture the wool for the clothing of their families, desks and fish the flax, let the potatoes, make butter, some of which is exported, and cheese for their own table. The inhabitants are sober, religious, and industrious: in summer they prepare peat for fuel; before and after harvest, they are employed in the herring fishery; during winter the men make herring nets, and the women spin their linen and woollen yarn. In spring they till their grounds; and in autumn they collect and burn fern for making kelp. Among the quadrupeds of this island, such as otters, wild cats, three mice, rabbits, and hares, flags, which were formerly numerous, are now reduced to few; and among the several species of birds, such as eagles, hooded crows, wild pigeons, black game, grous, ptarmigans, flares, daws, green plovers and curlews, are parturges, which now inhabit the island, and prove the advancement of agriculture. The government of the island is the same with that of the county of Bute; and besides, justice is administered at the baron's daily court, who may fine as high as 20s. decide in matters of property not exceeding 40s. imprisonment for a month, and put delinquents in the stocks for three hours, but only in the day time. From the immense carins, monumental stones, and many relics of Druidism, this island must have been very considerable in ancient times. Little is known concerning this island, till the time of Magnus, the Barefooted, the Norwegian victor, who probably included Arran
Arran in his conquests of Kintyre. Ache, one of his successors, laid claim to it 1267, together with Ruth and the Cumrays, and having furnished the first, was defeated in a bloody engagement at the village of Largs, facing the island of Ruth, and obliged, after the loss of 15,000 men to give up his conquests. Arran was the property of the clan. Robert Bruce, with several of his followers, found an asylum here in their distress. About the year 1343, this island seems to have formed part of the estate of Robert Stewart, afterwards Robert II. In 1356, it was ravaged by Donald, Earl of Ross, and lord of the isles. It was still the property of James II, and was given by his successor James III, as a portion to his sister, who married Thomas Lord Boyd, created Earl of Arran. On the disfigure of that family, the countess was divorced; and both the lady and island were bequeathed on Sir James Hamilton, in whose family, with the exception of a few farms, it now continues. Perth's Journey through Scotland, vol. ii. 172, 184.

Arran, or Arran, the name of two clusters of islands near the west coast of Ireland, the largest of each of which is called Arranmore, i.e. the great Arran. The north isles of Arran are near Donegal, in W. long. 5° 25', N. lat. 55°, and in one of them a town called Ruthland has been built for a later use. The most important isles are on the coast of Galway, between W. long. 6° 26', and 6° 45'. N. lat. between 53° 1', and 53° 36'. They are three in number, and shelter the entrance of Galway bay. They are very fruitful, and produce a small kind of oats without any husk. They are also remarkable for the finest caves in the county. Mr. Young mentions that they are not for 2000. per ann. In Arranmore several Irish saints were buried, and it is still held in veneration by the neighbouring peafantry. In this island also, on a high cliff over the sea, is Dun Aengus, a circle of monolithic stones without cement, capable of containing 200 cows. This is supposed to have been one of the Mandæa or melofores of monastic buildings, common in the seventh and eighth centuries. Dr. Beaufort's Memoir. Young's Collected. Ledwiche's Antiquities of Ireland.

ARRANGE, or RANGEMENT, the disposition of the parts of a whole, in a certain order. The modern philosophy shews us, that the diversity of colours of bodies depends entirely on the situation and arrangement of the parts, which reflect the light differently; the diversity of taste and smell on the different parts; which render them differently sensible; and the general diversity of bodies on the different arrangement of their parts. The happy arrangement of words makes one of the greatest beauties of discourse.

ARRANGEMENTS, Philosophical, a title given by the ingenious J. Harris, Esq. to an excellent commentary on the Categories of Aristotle: it is just as happy a simplification of Logic, as his Hermes is of Grammar. Both these valuable books, so well calculated to convey sensible and precise notions of logic and grammar, might be very usefully and copiously exhibited in the forms of a logical and grammatical treatise, after the manner of genealogical tables.

ARRAPACHITIS, in Ancient Geography, the most northern province of Affyrnia, according to the distribution of Pliny. It was watered by the Gyndas. The towns are unknown.

ARRAS, in Geography, a city of France, and capital of the department of the Braix of Calais, situate on the Scarp; before the revolution, the metropolis of the province of Artois. It was taken by the French king Louis X 11.; and annexed to France, in 1649, by the peace of the Pyrenees. Being seated on a mountain, it is surrounded by quaries, which supply stone for building. It is divided by a strong wall, a large fossé, and the brook Chinchiron, into two parts, called the town and the city, each of which is well fortified. It has four gates, and a strong citadel with five bastions. The great square, in which is kept the principal market, is full of fine buildings, surrounded with piazzas. The lesser market contains the town-houfe, the tower of which is covered with a crown, with a brazen lion on the top serving for a vane; in the middle of this market is the chapel of the Holy Candle, reported to have been brought by the Virgin Mary above 500 years ago for the use of the diseased inhabitants, and kept in a silver shrine. The cathedral church of Notre Dame is a large Gothic building, with a high tower, in which is a fine clock, embellished with small figures in bronze, representing the passion of Jesus Christ. In this church is a silver shrine, enriched with pearls and diamonds, and containing a part of wood called maux, which, report says, fell from heaven 1400 years ago in time of drought, and which was carried in procession when rain was wanted. The greatest ornament of Aras is the church of St. Vedalf, with a fine cupola, a pulpitt of brass in the firm of a tree, supported by two bears of the same sort. The chimes play a great variety of tunes. There are eleven parish churches. The tapestry, called Aras hangings, derives its denomination from this city. The place contains 19,564, and the canton 29,013 inhabitants: the territory comprehends 70 kilometres and 13 communes. N. lat. 5° 17'. E. long. 5° 50'.

ARRAYS, a river of France, which runs into the Garonne, about two miles north-west of Avillard, in the department of the Lot and Garonne.

ARRAY, in Law, the ranking or ordering a jury or inquill of men impannelled on any cause. The word may be derived either from the obsolete French, array, order; or from arrange, a line, stroke, &c.; hence, to array a pannel, ann. 3 Hen. V. is to set forth the men impannelled one by another. By the statute, every array in assize ought to be made four days before. For challenges to the array, see Challenge.

ARRAY, in Military Language. See Battle.

ARRAYAL, de FORATE, in Geography, a town in Brazil, situate on the west side of Para river, below the junction of its two great branches.

ARRAYERS, for ARRAYS, ARRAYERS, a Militar. Language, is used in some ancient statutes, for certain provincial officers, whose duty it was, not only to inspect the soldiers, and see that they were able-bodied and fit for service, but also that they were properly armed, accoutred, and otherwise appointed according to the station and nature of their service. They were likewise to arrange both the cavalry and the infantry into their proper bodies, equivalent to the present divisions of troops, squadrons, companies, and battalions. In some reims, commissioners were appointed for this purpose; and the form of the commission of array was settled in parliament in the 5 Henry IV.

About the reign of the king Henry VII. or his children, lieutenants began to be introduced, as standing representatives of the crown, to keep the counties in military order; for we find them mentioned as known officers in the statute 4 & 5 Ptn. & M. c. 3, though they had not then been long in use; for Camden speaks of them in the time of queen Elizabeth, as extraordinary magistrates continued only in times of difficulty and danger. But the introduction of these commissions of lieutenancy, which contained, in substance, the same powers as the old commissions of array, caused the latter to fall into disuse. In this state things continued, till the repeal of the statutes of armour in the reign of king James I. Stat. 1 Jac. I. c. 21. Jac. I. 5. G. c. 28.
ARR

c. 28. After this period, viz. in 1642, king Charles I. oppo-
pied his commissaries of array to the ordinance of parliament,
concerning the militia, and thus brought on the question of
the question which became at length the immediate cause
of the fatal rupture between the king and his parliament.

ARRAYOLOS, in Geography, a small town of Portuga-
lar, in Alentejo; situate upon the declivity of a mountain,
and containing about 2,000 inhabitants, a large monastery
belonging to the canons of St. John the Evangelist, and a
monastery of Franciscans. It lies north of Evora, south-
west of Montemour, and 6 leagues from Évora, in which
distance a single village is not seen. The soil is sometimes
granite in masses, and sometimes sandy granite. In the
vicinity are tracts overgrown with broom; but within a
league of Arrayolos the lands are cultivated.

ARREAR, ARREARAGE, ARREARAGE, or AR-
REARIUM, the remainder, or a sum of money
remaining in the hands of an accountholder. The word is
derived from the French arrêrages, which is formed from
arrêre, behind.

Arrears is also used more generally for a remainder of
rents or monies unpaid at the due time; whether they be
rents of a Manor, or any thing referred: called also, in
some writers, arrearagem firmarum.

Arrears, in Military Language, denote the difference
between the full pay and subsistence of each officer, directed
to be paid once a year by the agent. These arrears were
abolished in 1797. See PAY.

ARREAU, in Geography, a town of France, in the
department of the Higher Pyrenees, and chief place of a
canton in the district of Bigeres, 13 miles south-east of
Bigeres, and 131 furlongs south-west of Tarbes. The place
contains 980 and the canton 5779 inhabitants; the territory
includes 175,000 square miles and 159 communes.

ARRENS, a town of France, in the department of the
Higher, Pyrenees and chief place of a canton in the district
of Argelèse, on the Garonne, 8 miles south-west of Argelèse.

ARRENTATION, in the Forei Law, the licent
ning an owner of lands in the forest, to incline them with a low
hedge, and small ditch, in consideration of a yearly rent.
Saving the arrentations, denotes a power reserved to give
such licences for yearly rent.

ARREST, in Common Law, the apprehending or re-
aining of one's person, in execution of the command of
tome court of record, or officer of justice.
The word arrest is French, and is used in that language
for a decree or determination of a cause debated and to
and fro: in which sense it seems derived from arriér, placitum,
the pleasure of the court.

Hence when a person is legally flapped, apprehended,
and restrained of his liberty, for debt, &c., he is said to
be arrested, or put under an arrest; which is the beginning
of imprisonment.

Arrests are either in civil or in criminal cases.

i. An arrest in a civil cause, is defined to be the ap-
prehending or restraining of one's person by process in execu-
tion of the command of some court or officer of justice.
Wood's Jfr. 575. This arrest must be corporal seizing
or touching the defendant's body; after which the bailiff may
justify breaking open the house in which he is, to take him;
otherwise he has no such power, but must watch his opportunity
to arrest him. For every man's house is considered by
the law as his castle of defence and asylum, in which he should
suffer no violation. This principle is carried so far in the
civil law, that for the most part, not so much as a common
citation or summons, much less an arrest, can be executed
upon a man within his own walls. But doors may be
broken up in pursuance of one arrested; otherwise, action of
trespass, &c., lies for breaking open a house to make arrest
in a civil action. But if it appears a bailiff found an outer
door, &c., open, he may open the inner door to make an
arrest. Comb. 327. The court of King's Bench has
determined, in the case of Lee vs. Gen. Guelph, that the
chamber door of a lodger is not to be considered as his
outer door; but that the direct door being open, the officer
had a right to force open the chamber door, if the defendant
was in the room and refusing to open it. Comb. 1. Peers
of the realm, perseverers by birth, peers of Scotland, a percev-
by marriage, not afterwards having intermarried with a com-
moner, members or parliament, and corporations, are pri-
ileged from arrests, and of course from outlawries. And
gainst them the process to enforce an appearance must be
by summons, and ditrefes sine die, instead of a capias. Also
clerks, attorneys, and all other persons attending courts of
justice (for attorneys, being officers of the court, are always
supposed to be there attending), are not liable to be arrest-
ed by the ordinary processes of the court, but must be sued by
bill (usually called a bill of privilege), as being personally
present in court. Clergymen, performing divine service, and
not merely staying in the church with a fraudulent design,
are for the time privileged from arrests, by (5 Edw. III.
c. 5, and 1 Ric. II. c. 161; as likewise members of con-
vention actually attending thecon, by (5 Hen. VI. c. 1; 
and also ambassadours, or the domestic servants of an am-
badour, "really and bona fide in that capacity." Suitors,
withesses, and other persons, necessarily attending any courts
of record upon business, are not to be arrested during their
actual attendance, which includes their necessary coming and
returning. A bankrupt coming to surrender, or within 42
days after his surrender (5 Geo. II. c. 28, 5, Comb. 156);
withesses properly summoned before commissioners of bank-
rupt, or other commissiiners under the great seal (1 Atk.
54); but not creditors coming to prove their debts
(4 Term Rep. 377); heirs, executors, or administrators
(R. M. 1654), except on personal contracts by themselves
(1 T. Rep. 716); or in cases of deflagrat (1 Salk. 58),
are exempted from arrests. By (5 Ric. II. c. 10, no
isman aboard his majesty's ships can be arrested for any
debt, unless the fame be sworn to amount to at least
loll; but by the annual muster acts, a soldier may be arrested
for a debt which extends to half that value, but not to a less
amount. In an action against husband and wife, the hus-
band alone is liable to be arrested, and shall not be
charged till he have put in bail for himself and his wife
(1 Vent. 49. 1 Mod. 8); and ifhe is arrested, the shall
be discharged on common bail (1 Term Rep. 496. 1 Salk.
115). No arrest can be made in the king's presence, nor
within the verge of his royal palace, extending by (5
26 Hen. VII. c. 12, from Caring-troofs to Westminster
Hall, or within 200 feet from the gate of any of the
palaces and houses of the king, or any other house where
the royal person shall abide, nor in any place where the king's
jueces are actually sitting. The king hath moreover a
special prerogative (which indeed is very seldom executed)
that he may, by his writ of preceptio, privilige a defend-
ant from all personal, and many real, suits for one year at
a time, and no longer; in respect of his being engaged in
his service out of the realm. And the king also, by the
common law, might take his creditor into his protection,
so that no one might sue or arrest him till the king's debt
were paid (F. N. B. 28. Co. Litt. 131); but by (5
25 Edw. III. ft. 5. c. 19, notwithstanding such pretence,
another creditor may proceed to judgment against him,
with a stay of execution, till the king's debt be paid;
unles
unless such creditor will undertake for the king's debt, and then he shall have execution for both. An arrest in the night, as well as the day, is lawful. 9 Rep. 66. And lately, by that, 29 Car. II. c. 7, no arrest can be made, nor process served, upon a Sunday, except for treason, felony, or breach of the peace. But a person may be retaken on a Sunday, when arrested the day before, Mod. Ca1. 231; or, when he goes at large out of the rules of the King's Bench or Fleet prison, &c. 5 Ann. c. 9. By 12 Geo. I. c. 29, and 5 Geo. II. c. 27, both made perpetual by 21 Geo. II. c. 3, no person can be arrested, or held to bail, on a writ sued out of the superior courts, unless the cause of action be 10l. or upwards. And by 19 Geo. III. c. 70, no person can be arrested or held to bail upon process out of any inferior court, for less than 10l., but proceedings are to be had in inferior courts according to the directions of 12 Geo. I. c. 29, extended by 15 Geo. III. to debts under 10l. It is now settled, both in R. B. and C. P. that a person may be arrested in an action on a judgment for 10l. for damages and costs, though the original debt alone were under 10l. 4 Term Rep. 570. on the authority of 2 Blackf. Rep. 1274.

When a peron is apprehended for debt, &c. he is laid to be arrested; and writs express arrest by two several words, &ciones and attachatia, to take and catch hold of a man; for an officer must actually lay hold of a peron, besides saying that he arrrests him, or it will be no lawful arrest, 1 Liff. Abr. 96. If a bailiff be kept off from making an arrest, he shall have an action of assault; and where the person arrested, refists or assaults the bailiff, he may justify beating of him. If a bailiff touch a man, which is an arrest, and he makes his escape, it is a forcous, and attachment may be had against him. If a bailiff lays hold of one by the hand held out at a window, this is such a taking of him as will justify his breaking open of the house to carry him away.

2. An arrest in a criminal cause is the apprehending or restraining one's peron, in order to be forthcoming to answer an alleged or suspected crime. To this arrest all persons whatsoever, who are, without dangerous or equal, liable, and doors may be broken to arrest the offender; but no man is to be arrested, unless charged with such a crime as will at least justify holding him to bail, when taken. There is this difference between civil and criminal cases; that none shall be arrested for debt, trespass, &c. or other cause of action, but by virtue of a precept or commandment out of some court; but for treason, felony, or breach of the peace, any man may arrest without warrant or precept. Terms de Ley, 54. But the king cannot command any one by word of mouth to be arrested; for he must do it by writ, or order of his courts, according to law; nor may the king arrest any man for fullpicion of treason or felony, as his subjects may be, cause, if he doth wrong, the party cannot have an action against him. 2 Inst. 130. In general, an arrest may be made four ways; viz. by WARRANT: by officers without warrant, as by a JUSTICE of the peace, the SHERIFF, the CORONER, the constable, and Watchmen; by a private peron also without warrant; and by an FLIUE and ARRY. Amongst by private persons, also, it is considered that any peron who is present when any felony is committed, is bound by the law to arrest the felon, on pain of fine and imprisonment, if he escapes through the negligence of the by-standers. 2 Haw. P. C. 74. And they may justify breaking open doors upon following such felon; and if they kill him, provided he cannot be otherwise taken, it is justifiable; though, if they are killed in endeavouring to make such arrest, it is murder. 2 Hal. P. C. 77. Upon probable fullpicion also a private person may arrest the felon, or other person so suspected. 30 Geo. II. c. 24. But he cannot justify breaking open doors to do it; and if either party kill the other in the attempt, it is merely man slaughter, 2 Hal. P. C. 82, 83. Every private peron is bound to afford an officer, requiring him to apprehend a felon. In order to encourage the apprehending of certain felons, rewards and immunities are belowed on such as bring them to justice, by several acts of parliament. By 4 & 5 W. & M. c. 8. perons who apprehend a highwayman, and prosecute him to conviction, shall have a reward of fifty pounds from the public, to be paid them, or if they be killed, to their executors, by the sheriff of the county; to which is added by 8 Geo. II. c. 16. ten pounds, to be paid by the hundred indemnified by such taking. By 6 & 7 W. III. c. 17, and 15 Geo. II. c. 18. persons apprehending and convicting any offenders against those statutes respecting the coigne, shall, if the offence be treason or felony, receive a reward of 45l. or 10l. if the offence amount only to counterfeiting the copper coin. By 10 & 11 W. III. c. 33, any person apprehending and prosecuting to conviction a felon guilty of burglary, house-breaking, horse-stealing, or private larceny to the value of 5l. from any shop, warehouse, coach-house, or stable, shall be excused from all parish officers. By 5 Ann. c. 31. any peron so apprehending and prosecuting a burglar, or felonious house-breaker, or, if killed in the attempt, his executors shall be entitled to a reward of 40l. By 6 Geo. I. c. 25. persons apprehending and prosecuting to conviction any one taking reward for helping others to stolen goods, shall be entitled to 40l. By 14 Geo. II. c. 16. explained by 15 Geo. II. c. 34. any peron apprehending and prosecuting to conviction such as steal, or kill with intent to steal, any sheep or other cattle specified in the latter of the said acts, shall, for every such conviction, receive a reward of 10l. Lately, by 16 Geo. II. c. 15. and 8 Geo. III. c. 15. persons discovering, apprehending, and convicting felons and others, being found at large during the term for which they are ordered to be transported, shall receive a reward of 20l. Blackf. Com. vol. iii. p. 288. vol. iv. 289. Jacob's Law Dict. by Tomlin, art. Arrest.

The method of procuring a man's apperance before a court of justice, is different from that above recited, in most of the countries of Europe, where the forms introduced in the Roman civil law, in the reigns of the latter emperors, have been substituted. The usual practice is to have the peron sued, summoned to appear before the court by a public officer belonging to it, a week before the time. If no regard is paid to such summons twice repeated, the plaintiff, or his attorney, is allowed to make before the court a formal reading of his demand, which is then granted him, and he may proceed to execution.

In Rome, the method of seizing the peron of a man, against whom a demand of any kind was preferred, previously to any judgment being passed against him, was adopted and continued to be followed after the institution of the prator's court, to whom the civil branch of the power of the consuls was afterwards delegated; and it laded till the times of the latter emperors, in whose reigns the Roman civil law underwent those alterations which gave it the form it now has in those codes or collections that are in our possession. In Rome, however, instead of employing a proper officer, and furnishing him with a writ or order for seizing a man's peron, every one became a kind of public officer in his own cause, for ascertaining the prator's prerogative; and without any oftensive legal licence, or badge of public authority, had a right to seize by force the person of his opponent, wherever he met him. The practice was, that of
the "actor," or plaintiff, first summoned the "reum," or person sued, with a loud voice to follow him before the court of the prorator. If the defendant refused to obey this summons, the plaintiff, by means of the words "lust antellani," required the by-laws to witness the fact, in token of which he touched the ears of each of them; and he then proceeded to force the person of his opponent by throwing his arms around his neck "obsto colo," and thus endeavouring to drag him before the prorator. If the person sued was, by age or infirmity, unable to follow the plaintiff, the latter was directed by the Twelve Tables to supply him with a horse. This method of proceeding was afterwards, though very lately and very slowly, mitigated. In the first place, it became unlawful to seize a man in his own house, as it was the abode of his domestic gods. Women of good family, or "matronae," were protected from being dragged by force before the tribunal of the prorator. The method of forcibly placing a sick or aged person upon a horse was abolished during the latter times of the republic. Emancipated sons, and slaves who had obtained their freedom, were afterwards restrained from summoning their parents or relatives without the express leave of the prorator, under the penalty of fifty pieces of gold. However, so late as the time of Pliny, the old mode of summoning or carrying by force before a judge continued in general to subsist; though in the time of Ulpian, the necessity of obtaining the express leave of the prorator was extended to all cases and persons; and in the reign of Constantine, the method was introduced of having legal summonses served only by means of a public officer appointed for that purpose. After that time other changes in the former law took place, from which the mode of proceeding now used on the continent of Europe has been borrowed. De Lomme's Constitution of England, ch. 10.

**Arrêt of Judgment,** to move or plead in, is to shew just cause why judgment should be stayed, notwithstanding verdict given. Judgment may be arrested for good cause in criminal cases, as well as civil, if the indictment be insufficient. 3 Inst. 210. Motions in arrest of judgment may be made at any time before judgment signed. Doug. 747, Str. 845. Arrest of judgment arises from intrinsic causes appearing upon the face of the record. Of this kind are, first, where the declaration varies totally from the original writ; also, secondly, where the verdict materially differs from the pleadings and issue thereon; or, thirdly, if the case laid in the declaration is not sufficient, in point of law, to found an action upon. If judgment is not by some of these means arrested within the first four days of the next term after the trial, it is then to be entered on the roll or record. See Judgment.

In criminal cases, whenever the defendant appears in person, upon either a capital or inferior conviction, he may at this period, as well as at his arraignment, offer any exceptions to the indictment in arrest or stay of judgment, as for want of sufficient certainty in setting forth either the person, the time, the place, or the offence. And if the objections be valid, the whole proceedings shall be set aside; but the party may be indicted again. A pardon may be pleaded in arrest of judgment; and it has the same advantage when pleaded here, as when pleaded upon arraignment; viz. the faying the attainer, and of course the corruption of blood, which nothing can restore but parliament, when a pardon is not pleaded till after sentence. Praying the benefit of clergy may also be ranked among the motions in arrest of judgment. If all these remedies fail, the court must proceed to pronounce the judgment. See Judgment.

**Arrêt of Inquest,** or to plead in arrest of taking the inquest, is to shew cause why an inquest should not be taken. See Inquest.

**Arrêt, in Military Language,** is the exercise of that part of military jurisdiction, by which an officer is noticed for misconduct, or put into a situation to prepare for his trial by a general court-martial.

**Arrêt, or Arrêt,** is sometimes used among French writers, in the sense of the Latin word "retrocessum," to signify a small piece of steel, which was formerly used in the construction of fire-arms, to prevent the piece from going off.

**ARRÉSTANDIS honoris ne diffugiatum,** a writ which lay for the whole cattle, or goods taken by another, who during the controversy makes or is likely to make away with them, and will hardly be able to give satisfaction for them afterwards. Reg. Orig. 126.

**ARRÉSTANDO ipsius, qui pecuniam recepit ad professandum in obsequium reipr.** Sc. is a writ which lay for the apprehension of him that hath taken pecuniary to serve in the king's wars, and hides himself when he should go. Reg. Orig. 24.

**ARRÊTMENT,** in Scots Law, signifies the securing of a criminal till trial, or till he find caution to stand trial, in what are called bailable crimes. In civil cases, it denotes either the detaining of strangers or natives "in meditatio fugas," till they find caution "judicio fili;" or the attaching of the effects of a stranger in order to found jurisdiction. But, in the most general acceptance of the word, it signifies that diligence by which a creditor detains the goods and effects of his debtor in the hands of third parties, till the debt due to him be paid or secured. Arrestment may be laid on by the authority either of the supreme court, or of an inferior judge. In the first case, it proceeds either upon special letters of arrestment, or on a warrant contained in letters of horning, and it must be executed by a messenger. The warrants granted by inferior judges are called precedes of arrestment, and they are executed by the proper officer of the court. All debts, in which one is personally bound, though they should be hierarchically secured, are grounds upon which the creditor may arrest the moveable estate belonging to his debtor.

Moveable debts are the proper subject of arrestment; under which are comprehended conditional debts, and even depending claims. But there are certain moveable debts which are not arrettable; such as debts due by bil, future debts, and alimentary debts, including salaries of public offices. If, in contempt of the arrestment, the arrestee shall make payment of the sum, or deliver the goods arrested, to the common debtor, he is not only liable criminally for breach of arrestment, but he must pay the debt again to the arrestee. Arrestment is only an inchoated or begun diligence; for perfecting it, there must be an action brought by the arrestee against the arrestee, to make the debt, or subject arrested. Forthcoming. In all competitions of arrestments, regard is had to the dates, not of the grounds of debt, but of the diligence proceeding upon them. In the competition of arrestments with allegations, an affirmation by the common debtor, intimated before arrestment, is preferable to the arrestment; if the affirmation is granted before arrestment, but not intimated till after it, the arrestee is preferred. See Pounding.

**ARRÊTO ficta super hostis mercatorum alienigenarum,** Sc. is a writ which lay for a defencc against the goods of aliens found within this kingdom; in recompence of goods taken from him in a foreign country, after he hath been denied
denied restitution there. This answers to what among the ancient civilized was called charitote, now barbarously re-

dened. ARRETET-NE, in Zoology, a common term among the French for the Remora, or sucking-fish; alluding no doubt to the fabulous relations of the ancient poets, who feigned that this fish, which is scarcely more than a foot or two in length, was capable of arresting the progres of a ship to fall by fastening itself to the bottom of it. See ECHENES remora.

ARRETIIUM Vetus, now Arezzo, in Ancient Geography, a town of Italy, in Etruria. It was feated on a hill not far from Umbria, and was celebrated for its manufacture of earthen vessels, its wine, a fountain whence were flued oracles, &c. See Arezzo.

ARRETIIUM Julia, a town of Etruria, upon the Arno, north of the former.

ARRETIIUM Fidenis, another town of Etruria, south of Arretium vetus.

ARRETED, Arrectatus, orifi. ad rectum vocatus, is formed like in one of the ancient law-books imputed, or laid to.—As, no folly may be arrested to one under age. It is applied also to a person who is convended before a judge, and charged with a crime.


ARRHADON, a river of Aila, in Armenia, had its source in mount Caucasus, and ran into the Cucus. Strabo.

ARRHABONARI, derived from ἀρβανις, arba, corn- nel, in Ecclesiastical History, a feclt, in the sixteenth century, who held that the eucharist is neither the real flesh and blood of Christ, nor yet the sign of them, but only the pledge or carnell thereof.

ARRHADA, in Ancient Geography, a town of Arabia Deferta. Ptolomy.

ARRHE, or Argentum Drii. See EARNEST, &c.

ARRAPA, in Ancient Geography, a town of Aila, in Allfria. Ptolomy.

ARRAPHON, denotes a skill without futures, found to be the cure of incurable CEPHALAGIA.

ARRHENA, in Ancient Geography, a town of Aila, in Armenia Major. Pliny says, that the rivers Tigris and Aratius ran near one another through this country.

ARRHENOGONON, in Botany, a name given by fome to the paxistia, or pellicy of the wall.

ARRHEPHORIA, in Antiquity, a feft, among the Athenians, inultuted in honour of Minerva, and Herse, daughter of Cercus. The word is comp. made of ἀρρήφω, mystery, and τόιας, I carry; on account of certain mysterious things which were carried in procession at this solemnity.

Boys, or, as some fey, girls, between seven and twelve years of age, were the miniatures that affiluted at this fest, and were denominated αρρηφάς.

This feast was also called Hersephoria, from Herse the daughter of Cercus, on whose account it is said to have been first established.

ARRIA, in Biography, a Roman lady distingjuished by her fortitude and conjugal affection, was the wife of Cæ-

sion Petaus, a man of comtul dignity, who died in the 43d year of the C玳an era. Pliny, the younger has preferred (Epist. i. iii. ep. 16.) several anecdotes, fome of which are worth recording. Her husband and her son, who was a very amiable and promising youth, were both fazed at the fame time with a very dangerous disorder. The son died, but the mother concealed the dilrefling event from the fick father: and whenever he appeared in his presence, assumed a cheerful countenance, and answered his inquiries respecting the deceased with so much composure and serenity, that she even prevented the suspicion of his death. When her husband was apprehended, in confquence of having joined Scribonianus in a rebellion against the emperor Clau-

dus, and was conveyed by fome to Rome, Arria wished to accompany him in the fame veft; hut being refused, she hired a fiting boat, and followed him. Having arrived at Rome, she determined to die with Petus; and to the remonftrance of her fon-in-law Thraex, who asked her, "Would you wish that your daughter should accompany me, if I were to die?" she replied, "Yes, provided she had lived fo long and fo happily with you as I have lived with Petus." To those who watched her, and who endeavoured to divert the execution of her purpose, she faid, "You may make my death more painful, but cannot prevent it:" and dashing her head against a wall, fell fencile on the ground. Upon her recovery, she calmly faid, "I told you that I would find a difficult road to death, if you hindered me from obtaining an easy one." When her husband was ordered to defray himself, Arria perceiving his hefitation, plunged a dagger in her breast, and then prefented it covered with blood to her husband, exclaiming, in words cele-

brated by the ancient, who did not entertain that horror of fell-murder which Christians have derived from better principles, "Petus, it is not painful." Martial’s epigram on this subject is well known; but it is remarkeful, that he has given an ingenious turn to the fpecch, which injures its noble simplicity:

"Cafla fuo gladium cum traderet Arria Patro, 
Quam de scriboniis traducerat ipsa suis; 
Si qua fides, vulnus, quod fecis, non dolor, inquit; 
Sed quod tu facies, hoc mihi, Patre, dolor.

"When Arria pulled the dagger from her side, 
Thus to her comfort spoke the illustrious bride: 
The wound I gave myself I do not grieve; 
I die by that which Petus must receive."


Arria, the daughter, who was married to Petus Thraex, propofed to imitate this example of her mother, when her husband was condemned to death under Nero; but the changed her reflation upon his requiffit, who defired her to live in order to take care of their daughter. Tacit. Annal. i. xvi. c. 34. Gen. Diæt.

ARRIACA, in Ancient Geography, a town of Spain, between Complutum to the south-west, and Seguntia to the north-east, on the fame river with the fift of these towns.

ARRIAGA, RODERIO DE, in Biography, a learned Spanish Jesuit, was born at Lucena in 1592, and gained great applause by teaching philosophy at Valladolid, and divinity at Salamanca. Having voluntarily undertaken the office of teaching thefe sciences in Bohemia, he re-

moved to Prague in 1624, whence he was deputed three to Rome by the province of Bohemia, to affil at the general congregations of the order of Jesuits; and after acquiring distinguished reputation in the several offices to which he was appointed, he died at Prague in 1667. Such was the vigour of his mind, that he broke through the trammels of the schools in the investigation of philosophical and theological subjects; but delitute of the right clue to guide his inquiries, he indulged the wildest fcotettes in explaining the phenomena of nature, and wanderet into the regions of general scepticism, so that he was more successful in demolishing the opinions of others than in establishing any of his own. His works are: "A Course of Philosophy," in one volume folio, printed at Antwerp in 1632, and several times re-printed; and "A Course of Divinity," in eight volumes folio, printed between the years 1643 and 1655, by Balthasar Moret, at Antwerp.
ARR

He was prevented from finishing a ninth volume by his death. Gen. Diet.

ARRIAGLI, in the *Roller Media*, a name given by some authors, particularly by Sarmanna and Aviceina, to a fine kind of cannibar.

ARRIÀN, in Biography, a Greek historian, was born at Nicomedia in Bithynia, where he was priest of Procolepis, and flourished in the second century under the emperors Adrian and the Antonines. After his residence at Rome, he became a disciple of Epictetus, and by his talents and learning he recommended himself to the patronage of Adrian. Having been admitted to the honour of a Roman citizen, he was appointed prefect of Cappadocia, and in this situation he distinguished himself by his prudence and valour in the war against the Alani and Magyars. He was afterwards advanced to the dignities of senator and confus. Like Xenophon, he united the literary with the military character, and devoted a great part of his life to the pursuits of learning and philosophy. Of the numerous historical writings of Arrian, if we except some fragments preserved by Phoutius and Tzetzes, two only remain. The first is, “The Expedition of Alexander the Great, in seven books;” a work in high estimation, not only on account of the accuracy and fidelity that distinguishes the detail of facts, but for the simplicity and sweetness of the style in which they are recited. As his knowledge of political and military science was more extensive than that of Q. Curtius, he possessed a founder judgment, and was less inclined to the marvellous than that historian. His facts were collected from the best authorities, particularly from the memoirs left by Procmi Lagus and Aritobulus, who had served under Alexander in his expedition, and who did not publish their accounts till after the death of Alexander, and with no other motive besides that of discovering the truth. His style was formed upon the model of that of Xenophon, and combined simplicity and ease with strength and elegance, so that he was not unjustly denominated the second Xenophon. “This work,” says Dr. Robertson, (Hist. Diq. concerning India, p. 24,) though composed long after Greece had lost its liberty, and in an age when genius and taste were on the decline, is not unworthy the purest times of Attic literature.” Arrian’s “Account of the Affairs of India,” in which the history of Alexander is pursued, has been considered by many as an eighth book of the former work; though it has been objected that this book is written in the Ionic, but the former in the Attic dialect, and that its facts are chiefly taken from Megasthenes, to whom Strabo allows little credit. Dr. Robertson (ubi supra, p. 344.) lays, that the Indian history of Arrian is one of the most curious treatises transmitted to us from antiquity. The first part of it consists of extracts from an account given by Nearchus of the climate and soil of India, and the manners of the natives; and the second contains that officer’s journal of his voyage from the mouth of the Indus to the bottom of the Persian gulf. For the elucidation of this curious monument of ancient navigation, see “The Voyage of Nearchus from the Indus to the Euphrates,” by Dr. Vincent, 4to., 1797. We may add, that notwithstanding some particulars, to which objections have been made, and which have been examined by Dr. Robertson and others, the account of Nearchus’s voyage, detailed, probably only in part by Arrian, the promontories, the creeks, the rivers, the cities, and the mountains, which came successively in his view, are so clearly described, and the distances of such as were most worthy of notice are so distinctly marked, that M. d’Anville, by comparing these with the actual position of the country, according to the best accounts of it, ancient as well as modern, has been able to point out most of the places which Nearchus men-

ARR

tions, with a degree of certainty, which does as much honour to the veracity of the Greek navigator, as to the industry, learning, and penetration of the French geographer. Mem. de Later. tom. xxx. p. 132, &c. See also the learned and elaborate work of Dr. Vincent, above cited. Arrian’s “Expedition of Alexander” was first printed in Greek, at Venice, in 1808, in 1535; at Basle, in 1539, 8vo.; at Geneva, by H. Stephens, in 1755, fol.; in Greek and Latin, by Blanchard, 8vo. with notes, at Amsterdam, in 1658; by Gronovius, at Leyden, in 1704, fol.; and at Amsterdam, in 8vo., with the notes of Raphaelius and others, in 1757. The book, “De Indicis” has usually been published with the “Exped. Alex.” The “Periplus Ponti Euxini,” in a letter from Arrian to Adrian, contains a description of a voyage along the coasts of the Euxine Sea, is still extant, and was probably written while Arrian was prefect of Cappadocia. The “Periplus Maris Erythraei” has been ascribed by some to Arrian, but Salmuani is of opinion that it was written in the time of Pliny the natural historian, or a little before his time; and that it could not have been composed by Arrian, and addressed to Adrian, because mention is made of several princes who lived in Pliny’s time. M. Tillemont apprehends, that it was composed by that Arrian to whom Pliny the younger wrote several letters, whom he represents as a man of great abilities and eloquence, and who was considered as an imitator of Demochernes. But this Arrian, having retired from public employments about the time of Nerva, or the beginning of Trajan’s reign, could not have been the same with the disciple of Epictetus. The “Periplus Ponti Euxini,” and “Periplus Maris Erythraei” were published together at Basle, in fol.; at Leyden, in 1577; and among the Ancient Geographers, in 4to. by Gronovius, at Leyden, in 1697; and at Oxford, in 1693, 8vo. The “Tactica” of Arrian was written in the 20th year of Adrian. It treats of the order and arrangement of an army, and also the order which Arrian gave for the march of the Roman army against the Alani. His book “On Hunting” was published in Blanchard’s edition of the works of Arrian; and of his invaluable moral treatise, intitled “Enchiridion,” containing the discourses of Epictetus, we have an excellent edition by Upton, printed at London in two volumes 4to., in 1739.


ARRIANA, in Ancient Geography, a town of Panonina Prima, in the district of Norica Ripenula.

ARRIÀ, in Geography, a village of Africa, two leagues north of Tunis, in which are seen some ruins of ancient Carthage, particularly a long range of the arches of the celebrated aqueduct, all of them entire, seventy feet high, supported by columns sixteen feet square. The channel, that conveyed the water, lies upon these arches, and is high and broad enough for a person of an ordinary size to walk in. It is vaulted, and plastered in the inside with a strong cement, which by the stream running through it, is discoloured to the height of about 3 feet. Shaw’s Trav. p. 42.

ARRIB, in Commerces, equal to 100 crores, each crore being 160 lacks, and each lack 12,500l.: so that an arrib is equal to about 25,000,000 l.

ARRIBANTRUM, in Ancient Geography, a town of Dardania, a country of Upper Mysia. Procliyn.

ARRIEGE, in Geography, a river of France, which rises in the Pyrenees, passes by Foix, Pamiers, Savarden, St. Gabelle, &c. and joins the Garonne about two miles from Touloune. Gold has been found in several parts of this river near Pamiers.

Arriège gives name to one of the departments of France, formed of the territory called Conzernes, and the Pays de Foix. It is bounded on the north by the departments of Upper
ARR

Upper Garonne, and of Aude; on the coast, by the departments of Aude, and the Eastern Pyrénées; on the south, by the department of the Eastern Pyrenees, and the Pyrénées; and on the west, by the department of Upper Garonne. Its superficial is about 1,037,532 square acres, or 529,542 hectares; its population consists of about 104,936 individuals; and it is divided into three communal districts. Its chief town is Tarbes.

ARRIÈRES, a mountain of France, in the department of the Cantal, remarkable for the resort of birds of prey, such as eagles, falcons, kites, &c. one league from Falaize.

ARRIERE, Fr. denotes the rear.

ARRIÈRE-BAN, or Arrière-ban, in the French Calquons, is a general proclamation, whereby the king summons to the war all that hold of him: both his vassals, i.e. the nobles, and the vassals of his vassals.

M. Caffeneve takes the word to be composed of arriere, and ban; the ban, according to him, denotes the convening of the nobles or vassals, who hold feoff immediately of the king; and arriere, those who only hold of the king immediately.

ARRIÈRE, or arrièr, is a fee dependant on some other superior one.

Arrièr-fees commenced at the time when the counts and dukes, rendering their governments hereditary in their families, distributed to their officers certain parts of the royal domains which they found in their provinces; and even permitted those officers to gratify the holders under them with parts of the same.

ARRIÈRE-GUÉL. See Rear-guard.

ARRIÈRE-Vaill, or tenant, the vassal or tenant of another vassal or tenant.

ARRIGNO, in Geography, a town of the island of Corsica, eight miles east of Calvi.

ARRIGONI, CARLO, in Biography, an eminent Italian Lutenist, who arrived in England about the time of the establishment of the Royal Academy, or opera, in 1721, where he accompanied on the lute out of the composer's book or score, during the whole time of Handel's regency. In 1721, he accompanied Farinelli: he had many scholars in singing in the great families of this country, and had the reputation of a good composer. He left England in 1738, and removed to Vienna, where he composed the oratorio of Elither, which augmented his reputation as a good musician.

ARRION, in Geography, a town of Perpignan, in the province of Ardeil-belzian, thirty leagues south-east of Tauris.

ARRIÖN, or Carrion, a river of Spain, which runs into the Pyrénées, near its union with the Duero.

ARRIO, a river of England, which runs into the Lug, near Lemington, in Herefordshire.

ARROBAS, or Arrobas, in Commerce. See Arobes.

ARROE, in Geography, an island of Denmark, in the Baltic mountains, but interfaced with valleys, and containing three parishes: it lies south of the island of Funen, and west of that of Langeland. N. lat. 54° 55'. E. long. 10° 10'.

ARROGAS, is also a small island of Denmark, in the Little Belt, west of Funen, and almost contiguous to the east coast of the duchy of Sleswick. It gives name to a Sound on that coast. N. lat. 55° 16'. E. long. 9° 40'.

ARROEKJOBING, a town of Denmark, in the island of Arroe, in the Baltic.

ARROGATION, See Adoption.

ARROJA, or St. Servan, in Geography, a town of Spain, in the province of Elbremadura, three miles south of Merida.

ARROS, village of Scotland, in the isle of Mull.

ARRON, or Aron, a river of France, which runs into the Loire near Dazé.

ARRONCHES. See Aoronches.

ARRONCHIE, in Heraldry, Cross-arrondie, or rounded, is that whose arms are composed of sections of a circle, not opposite to each other, so as to make the arm bulge out thicker in one part than another; but both the sections of each arm lie in the same way, so that the arm is every where of an equal thickness; and all of them terminating at the edges of the escutcheon, like the plain cross.

ARROON, or Arron, a geographical island of that part of Asia called Aufralasia, lying to the south-west of New Guinea; in s. lat. 6°, and E. long. 135°. Although Penman calls these among the fiphey islands, they produce, according to his account, fago, and not fipe. During the dry, or westem monsoons, the mannequart, or birds of Paradife, which breed in New Guinea, and reside there whilst the wet monsoon lasts, retire to Arroon; migrating in flocks of 30 or 40, under the conduct of a leader, called by the inhabitants of Arroon, the king: he is said to be black, to have red spots, and to fly far above the flock, which never desert him, but settle where he settles. During their flight they cry like starlings; but when surprized with a strong gale, they croak like ravens, and attend to the superior regions of the air. They slight on the highest trees, and seem to feed on berries, or on nutmegs and butterflies; and they are either shot with blunt arrows, or caught with birdline, or nooses. The bowls and breast-bone being extracted, they are dried with smoke and pulphor, fold for nalls or bits of iron, and exported to Asia, Africa, and America. The Arroon idylls appear, in Arroon thefth's chart, divided into five by intervening illarts. The chief produce is fago; and the people make expeditions to the main land, where they seize captives, and sell them at Banda. Since 1623, the Arroon idylls have been considered as belonging to the Dutch East India Company, and subervience to those of Banda.

ARROS, a river of France, which runs into the Adour near Aire, in the department of Landes.

ARROSOR, in Conchology, a name signified by modern French naturalists, after Brugière and Lamarck, to a new genus of shells, formed exclusively of the Linnean Serpula penis, and another analogous species figured in the twenty-ninth plate of Tawan's Conchology. The former is the Pcellus marinus of Argenville; Chinese water-pot of the English; and L'Arrosee d'herve of the French; the latter is also called by them L'Arrosee de la Nouvelle Zeland. See Serpula penis.

ARROTONIO, L', in Sculpture, a statue in the gallery of the great duke at Florence, representing an old man reeling upon one knee, and whetting a kind of bread knife upon a stone, with his head erect, and, as it were, bilinging with great attention, but very cautious of being observed. The head and the hair of this piece of sculpture are particularly admired. It is generally thought to have been a peafant, who, being in the field, happened to over hear some of Catiline's accomplices, and discovered them: but the history of that conspiracy, as also of that headed by Brutus's sons, makes no mention of their being detected by a country labourer. Keyhler's Trav., vol. ii. p. 21. Leonard Agotlin, cited by Gronovius, supposes that this statue represents a Scebian charged by Apollo with the destruction of Mar- syas, and that it made part of a group, exhibiting the punishment of this audacious rival of Apollo.

ARROU, in Geography, a town of France in the department of the Eure and Loir, and chief place of a canton in the district of Chartres, 4 leagues S.S.W. of Chartres.

ARROUKHAGE. See Arukhage.

ARROUX, in Geography, a river of France, which rises near Arneay-le-Duc, and runs into the Loire, between Digoin, and Motte St. Jean, in the department of the Saone and Loir.

ARROW,
ARROW, in Archary, in the Saxo nympe, or nympe, a native weapon of offence, flunder, pointed, and barbed, made to be cast or shot from a bow. See Archary.

Matthew derives it from the Latin arcum, because the ancients so frequently made the shafts of their arrows from reeds. Skinner refers us to the Anglo-Saxon sceap, p饌sow, and Jones to the French pereche, because the arrows depended on the enemy like a shower.

The chief of the nations that composed the army of Xerxes had both their bows and arrows made of reeds; the bows, however, of the Lyceans were of round wood; the arrows of the Ethiopians were pointed with iron; those of the Egyptians with a sharp bone that they sometimes used to cut their heads with; and the arrows of the Lyceans were unfeathered. (Herodotus, Polymniau.) The Grecians headed their arrows with brass, as well as the Scythians; and from a particular passage in the Olds, they are supposed, that the heads of the Grecian arrows were followed on as they were wanted.

The ancient Germans generally prefixed pointed flakes to their weapons; and Broder, in his notes on Tacitus, observes, that many such have been discovered in the German provinces. Nor is it an uncommon thing to find arrowheads of flint in the ancient coins of flint in our own country. (See Gough, Sep. Mon. vol. i. p. 18.)

Among the Romans, although the tree called Corvus was very frequently made use of for the arrow-faith, yet the most common material was the reed, which grew in Italy, not with great strength, but in great abundance, particularly in the Pompeine marshes.

The use of the arrow among our early ancestors has been already spoken of (see Archary); the particular material, indeed, of which either the head or shaft was made, has not come down to us; but we can speak of the arrows of the middle ages with a greater degree of certainty.

Roger Asham thought (Toxophil. ed. 1571, f. 166.) that for the pluming of an arrow, the feathers from the wing of a grey goose were preferable to any other; which strongly reminds us of part of a stanza in the well-known ballad of Chevcy Chase, where an English archer aimed his arrow at Sir Hugh Montgomery:

"The grey goose weiging that was thereon, In his heartes blood was wette."

The more ancient ballad, however, reads, faneke feathers. In the "gelle of Robyn Hode," among Mr. Garrick's old plays, in the Muckle, the arrows of the outlaw and his companions are particularly described:

"With them they had an hundred bowes, The stringes were well ydght; An hundred shefe of arrows good, With hecche burnifli'd full breyth; And every arrow an ell longe, With peakele well ydght, And nocked they were with white silk, It was a feemly flght."

And Chaucer, in his description of the swyers yeoman, says:

"And he was clad in cote and hode of grene, A shefe of peakele arrowes breught and thicke, Under his belt he bare full thirthily, Well coude he dreffe his tackle yemanly: His arrowes droupt not with fethers lowe, And in his hande he bare a mighty bowe."

Prof. to Cant. Tales.

In the wardrobe accoutrements of the 28th Edw. I. (p. 350.) is a charge of verdigrise to flain the feathers of the arrows green. Nor are we to suppose that peacock arrows are only to be found in poetry; a wardrobe accoutrement of the 4th Edw. II. furnishes this entry; "Pro duodecin fleechis commenis de Arrew, emptis pro rege de 12 den." And Corvele Mulkham mentions that when he wrote, 1631, the penteck feather was sometimes used at the short butt; yet seldom or ever, he complains, did it keep the shaft either right or level. (Art of Archery, p. 94.)

"As chayn says, in the composition of an arrow there are three essential parts; the fluke or wadd, the feathers, and the head. The fluke was not always made of the same species of wood, but varied according to the different modes of shooting prescribed. He commands found off for military arrows, and prefers it to ash, which in his day, as well as at the time of Charles I., was generally used for the arrows of the army; but for palmyre he thought none were better than those made of oak, hard-beam, or birch. Occasionally, it should seem the arrow, toward the head, was pierced with brasil, holly, or other heavy wood, to make it fly the faster. (Mulkham's Art of Archery, p. 86.)

The arrows at Chievit Chace were drawn to the ear, contrary to the usage of the ancients, as appears not only from many of their relics, but the traditionary circumstance of the Amazonsparting with their belts as an indemnity to their using the bow. Some of our ancient ballads extend the length of the arrow to an ell; but the cloth-yard appears to have had the preference, and is mentioned not only in the old ballad of Chevy Chace, but by most of our historians, as the particular length of the arrow used by the English archers at the battle of Agincourt, 1415; and by Carew, (Survey of Cornwall, p. 73.) 1622, as in use among the Cornwall bowmen. (See Strutt's Sports and Pastimes, p. 50.)

Archers generally speak of an arrow weighing so many fluidrams; but they consider an arrow of an ounce's weight to be the belt for flight or hitting a mark at a considerable distance. As to the feathers, those of a goose are preferred; it is also wished that the bird should be two or three years old, and that the feather may drop of itself. Two out of the three feathers are commonly white, being plucked from the gander, but the third is generally brown or grey, being taken from the goose, and from this difference in point of colour informs the archer when the arrow is properly placed. (Arch. and vol. vii. p. 65.)

Mr. Grofe, in his Military Histo, (vol. ii. p. 160,) quotes a curious particular respecting arrow heads from Swinden's History of Great Yarmouth; where the sheriff of Norfolk, in the 42d of Edw. III, being ordered to provide a number of garbs of arrows headed with steel for the king's use, is directed for the heading of these to seize all the flocks of anchors (omnes alas ancorum) necessary for the purpose. Arrows were usually reckoned by the garb or h of. For immediate use they were carried in the girdle.

ARROW, for the graft bow. See Bolt.

ARROW. Fire. When the Parthians, under Xerxes, encamped on the hill opposite the city of Athens, they commenced their attack by flouting against the barricade of wood, which the oracle had declared invincible, arrows wrapped in tow, and fir-d. (Herodotus, Uraniu.) This, as far as we remember, is the earliest instance of fire arrows on record. Among the Romans they were seldom used. But the warriors of the middle ages frequently fixed phials of quicklime, or other combustible matter, to their arrow heads, and shot them from the bow; (See Matt. Paris, p. 1600, 1601) and in sea-fights they were found particularly serviceable. Even so low as the time of Edward VI. arrows with wild-fire, and arrows with fire-works, are mentioned among the arrows at Newhaven and Berwick. (Grofe, Milit. Hist. vol. ii. p. 276.)

ARROWS, Whiffing. The use of whiffing arrows, as laid in this country, cannot be carried to very high antiquity. It seems probable that they were first used on military occasions,
finns, and especially as signals during the quarrel of the roes. Hall (An. 7 Hen. VIII. fol. 56.) mentions a company of archers who met King Henry VIII. at Shooter's-hill, on a May-day morning, where they discharged their bows in his presence, and the arrows made a loud whistling in their flight, "by craft of the head." The slangers of the noise, we are told, surprised the king: but this is no proof that the use of the weapon was a novelty. In this case the arrow-head was usually made with horn, rounded at the end and pierced with f-velar holes. See Arch. vol. ii. p. 58.

For the practice of divining by arrows, see Belomancy.

Arrow, in Astronomy, Trigonometry &c. See Sagitta.

Arrow, in Fortification, is a work placed at the slanting angles of the glacis, and consists of two parapets, each forty toises long. The work has a communication with the covert-way, of about twenty-four or thirty feet broad, called capponier; and a ditch before it, of five or six toises.

Arrow, in Geography, the name of a rough, or lake, in the county of Sliö, in Ireland, which is about eight miles long, full of romantic and woody islands, and of a very irregular form; and also of a river proceeding from the lake, and running northward to Ballydore, where it rushes at once into the sea, breaking over rocks in the most romantic manner, from edge to edge, in many falls for the space of 200 yards, before it comes to the principal one, which is twelve or fourteen feet perpendicular. Beaufort. Young.

Arrow, in Surveying, is used for small straight rods, of which there are ten, about a foot or half a yard long, studded with iron ferris. Their use is to lie across the ground, at the end of every chain, in measuring lines.

ARRAUΣ, or Arracks, in Geography, a name given to the ancient natives of Hispaniola, Cuba, Jamaica, and Porto-Rico, as well as of Trinidad, who were a mild and comparatively cultivated people, and who seem to have had one common origin, as they speak the same language, follow the same institutions, and practise similar superstitions. Columbus treats of them as such; and the testimony of many contemporary historians confirms his opinion. The Charaibles, or Caribbees, regarded them as the descendants of a colony of Guiana, a race of Indians to whose noble qualities the most honourable testimony is borne by every traveller who has visited them, and recorded his observations. Mr. Bryan Edwards thinks it extremely probable, that all the various nations of this part of the New World, excepting only the Charaibles, emigrated anciently from the great hive of the Mexican empire. But at what period such emigrations were made; whether the Charaibles were previously pollefed of the widely extended coast that bounds the Atlantic, or, in posterior ages, accidentally found their way thither by sea from the continent, are points concerning which, as it is impossible to determine, it is in vain to inquire. Mr. Edwards has given a particular detail of their person and corporeal endowments, their intellectual faculties and dispositions, their political institutions, and their religious rites. See his History of the West Indians, vol. i. p. 60. &c. Arrow, Eff. See Eff-arrows.

ARRAWSIKE, in Geography, an island in the district of Maine, in America, separated from Parker's island by a small strait. It is within the limits of George-town; and contains nearly one-third of its inhabitants, and has a church. It comprehends about 20,000 acres of land.

Arrow, Magical, a sort of weapon very common among the barbarous inhabitants of Lapland, and many other of the northern climates; and supported to pollefs very strange virtues.

Arrow, Wildfire. See Wildfire, Vol. II.
ARS

faicida," however, was not extinguished in Artahanus, but continued to reign in Armenia, till the time of the emperor Juffianus, holding that kingdom of the Persians monarchs, to whom the "faicidae" of Armenia were tributaries. Anc. Un. Hist. vol vii. p. 129. Vol. ix. p. 240.

ARSACIDES, Land of, in Geography, high land, covered with wood, Situate near the mouth of the Angelus, in that part of Asia called Anablania, forms a part of the islands of Gower, Cartaret, and Simplon, seen by Captain Carteret in 1767, observed by M. de Bougainville in 1768, and seen by M. Surville in 1766, who called it the Archipelago of the Arsicades. This land forms some part, at least, of the Solomon islands, which were first recognized by the English; though the discovery of them is claimed by M. de la Tour, and other French writers, in favour of French navigators. These islands were visited in 1788, by Mr. Shortland, and called by him New Georgia. See Solomon Islands.

ARSÉ, in Ancient Geography, a people of Arabia Felix, according to Ptolemy.

ARSÉALITÉ, a people of India, placed by Pline beyond the Indus.

ARSAG, in Geography, a town of Italy, in the Milaneze, four leagues north of Milan.

ARSAMAS, a town of Russia, in the community of Novgorod. It is the capital of the district of Arjas, Situated on the river Teth, falling into the Oca, and on the road from Moscow to Archangels, 120 leagues southward from the former, and 200 north-west from the latter.

ARSAMATTHAS, in Ancient Geography, a river of Armenia, over which the Parthians compelled the Romans to build for them a bridge. Lipius has, without sufficient reason, corrected the text of Tacitus, and called it Arfànias.

ARSAMOSATA, Simsat. See Armosata.

ARSE, a town of Palentine, in which Afa, king of Israel, was buried, according to Josephus, Ant. i. v. c. 6. ARSANIAS, ARSEN, a river of Asia, which had its source in the mountains east of the Euphrates, and passing through a small lake, traversed the south-west between the mountains, passed by Arsamofata, and discharged itself into the Euphrates to the south-west of that city. Pliny, Dion, Plutarch, and Tacitus, mention this river; and the latter says, that it ran between Tigranocerta and Artaata.

ARSARATHA, a town of Asia, in Armenia Major. Ptolemy.

ARSCHIN, in Commerce, a long measure used in China, to measure fluids; of the same length with the Dutch ell, which is two feet eleven lines.

ARSCHOT, in Geography. See Arschot.

ARSE-veris, in Antiquity, a term, or formula, inscribed on doors, to prevent fire. It is said to be of Tuscan origin, where the word arse signifies arsenic, and veris, fire. Plut. Lex. Ant.

ARSEMINI, in Geography, a town of the island of Sardinia, seven miles south-west of Cagliari.

ARSENE, in Ancient Geography, a river of the western part of Arcadia, which ran from the north-east to the south-west, and discharged itself into the river Ladin.

ARSENA, a name given by Strabo to the lake Arethusa in Armenia Major.

ARSENALE, a royal or public magazine, or place appointed for the making and keeping of arms, necessary either for defence or assault. The Romans had arsenals in all the frontiers of their empire.

The arsenal of Venice is the place where the galleys are built and laid up. This is a fortification of between two and three miles in compass; on the ramparts are many little watch-towers, where escutcheons are fastened. Like the arsenal at Toulon, it is both a dock-yard, and a repository for naval and military stores. Here the Venetians build their ships, call their cannon, make their cables, fix their anchors, &c. — The arsenal of Paris is that where the cannon or great guns are cast. It has this inscription over the gate: "Arsenal, Henry IV., to the manufacturers of cannon, "Tous Cuirassiers, De Choultre, Sireux." There are arsenals or gun-rooms appropriated to naval furniture and equipments. — At Marseilles is the arsenal for the galleys; and at Toulon, Rochefort, and Breil, are those for the men of war.

ARSENARIA, in Ancient Geography, a Roman colony of Africa, in Mauritania Cæsariensis. This town was an episcopal see. It corresponds to the modern Arséw.

ARSENIAIT. See Arsenic, § 10.


Arsenic is a brittle acid-soluble metal, of a bluish white colour, easily tarnishing by exposure to the air: it does not melt, but volatilizes by a gentle heat; exhaling copious white fumes, with a peculiar allusive or garlic smell; it is soluble in nitric-nitric acid, and is precipitable in the form of a light orange-coloured powder by sulphuret of ammonia, or of a green colour by ammoniated copper.

§ 1. Ores of Arsenic.

Besides the ores of arsenic properly so called, this metal is found in combination with silver, copper, iron, lead, cobalt, antimony, and lime, all of which will be treated of in their proper places; at present we shall confine ourselves to those fruffles which, by the common content of mineralogists, are arranged as ores of arsenic.


Its colour when newly broken is a very light lead-grey, often passing into tin white; but the surface, by a short exposure to the air, becomes yellow, then blackish grey, and finally almost black.

It is found generally in mafs, more rarely disseminated; in kidney-shaped or clustered mafs, or in plates, or carious, branched, bearing impressions, &c. Externally it is rough or granular, with little or no luster, internally it is little shining, with a metallic lustre.

Its fracture is sometimes fine-grained, uneven, or curved lamellar; more rarely radiated or bundled. It flies when broken into indeterminate blunt-edged fragments, sometimes in the form of plates. It is also frequently composed of different concretions, either tellaceous, concentric, or kidney-shaped.

It acquires a polish by friction, and emits an aniseaceous odour; is half-hard and brittle. It rings when struck by a hard body.

Sp. gr. according to Brillon 5.724...5.763; according to Kirwan 5.67.

Before the blow-pipe native arsenic fuses without difficulty, giving out a copious, white, allusive flame; by an increase of heat it takes fire, burns with a bluish flame, and is wholly dissipated. It deposits on the charcoal, or any cold substance that is presented to it, a white powder, which is oxide of arsenic.

Native arsenic is not, however, in a state of absolute purity; it always contains a small and variable proportion of iron; besides occasionally a little gold or silver.
ARSENIC.

This mineral is found at Weilrich and Joachimsthal, in Bohemia; at Freyberg, Annaberg, Schn eебerg, Marienberg, and Johanneburg, in Saxony; at Andreasberg, in the Harz; at Geilberg and Seit lipach in Carnuthia; at Nagyag in Transylvania; and St. Marie-aux-Mines in France. It occurs only in the veins of primitive mountains: the substances that accompany it are red silver, realgar, galena, native silver, specular cobalt, kupfernickel, spathose iron, fahlerer, pyrites, quartz, heavy spar, calcareous and fleshy spars.


Of this there are two varieties.


Its colour where recently fractured is silvery white, but in general its surface is yellowish, greyish, or bluish, sometimes iridescent. It occurs in mafic, disseminated, involuting, or crystalized. The primitive form of its crystals is a rhomboidal prism, the angles of whose base are 105° 20', and 76° 40': the other varieties that have been ascertained are, the rhomboidal prism with dihedral summits (for arsen., dimin. of Haury), and the same prism with tetrahedral summits (E. sr. quadrilateral of Haury). The lateral faces are sometimes cylindrical, either concave or convex. The faces composing the sides of the prisms are always smooth and shining; those of the summits are crooked by attrition. Internally the marcasite is shining, with a metallic lustre. Its fracture is uneven, coarser, or finely granular; presenting occasionally columnar or granular distinct concretions. When broken it flies into indeterminate sharp-edged fragments. It is hard, generally giving fire with steel, and diffusing an alliaceous odour; it is brittle, but difficult to break.

Sp. gr. according to Gallert 5.75; according to Haury 5.52.

When exposed to the flame of the blow-pipe on charcoal, this mineral gives out a copious arsenical fume, and melts into a globule of brittle iron. Its analysis has not yet been made with any accuracy, and probably the amorphous kind at least, on account of the variable proportion of its ingredients, is incapable of affording an exact result. The con- fluent parts of pure mispickel appear to be only arsenic and iron, both of them in the metallic state; but it is often intimately mixed with iron pyrites, and hence affords an uncertain quantity of sulphur: two specimens analyzed by Vaqueruel, yielded respectively 35.8 and 4. per cent. of arsenic, which seems to show that mispickel and pyrites, though, when pure and crystalized, sufficiently distinct from each other, are so intimately blended by nature, as to pass by insensible gradations from the one to the other extreme of the series. In several of these compounds, however, minute inspection has discovered small separate cubes of pyrites; and the intermediate varieties are rather to be considered as simple mixtures than chemical compounds.

The two substances with which marcasite is liable to be confounded, are arsenical cobalt and pyrites. It differs from the first in being harder, in having a yellowish white tint, while the colour of the other is reddish white, and in the form of its crystals: it is distinguishable from the latter by giving out when struck an arsenical, instead of a merely fulphurous odour, by the lighter yellow of its colour, and by its crystalline forms.

Marcasite is found in Bohemia, in Saxony, in Silesia, in Cornwall, and various other places, either in veins, or disseminated through primitive mountains. The substances by which it is accompanied, are generally tin-stone and galena; more rarely black blende, spathose iron, copper pyrites, quartz, fluor, and calcareous spars. At Reichenbach in Silesia, it is found in serpentine rock.

Marcasite appears to be made little or no use of: the more brilliant specimens are occasionally cut and polished, and made into buttons, and other small articles; this is particularly the case with some found near Dublin, and called Irish diamonds.

Var. 2. Argentiferous marcasite. Weißerz, Werner.

Its colour is similar to that of the preceding variety, but when exposed to the air it tarnishes to a deeper yellow. It is rarely found in mafic, being generally disseminated or crystallized in minute acicular four-sided prisms. Externally it is shining, internally little shining, with a metallic lustre. Its fracture is fine-grained, uneven, with granular distinct concretions.

Its other external and chemical characters correspond with those of the preceding variety, from which it differs only in a variable proportion of silver, from 1 to 10 per cent., and for which it is often worked.

It is found at Freyberg and Braundorf in Saxony; and is usually accompanied with common marcasite, red silver, galena, copper pyrites, &c.

For the affinities of this mineral with arsenical silver, see Silver. Orts of.


This species is divided into two varieties, the red and yellow.


Its colour is a bright Aurora red, passing on one hand to scarlet-red, and on the other to yellow-orange. It is rarely found in mafic, more frequently disseminated or involuting, and very frequently crystalized. The primitive form of its crystals is a long octahedron, with faceted triangular faces exactly the same as sulphur. The two pyramids of the octahedron are sometimes intercepted by a quadrilateral prism (see Crystallographical Plates, fig. 94.), forming the variety A. f. r. emouillé of Haury; other varieties are derived from bevelling and truncating the angles of the intervening prism; and a further variety (fig. 95.) A. f. r. furcomposé of Haury, is produced by the truncation of all the fold angles of the terminating pyramids. The crystals are for the most part small, and not easy to determine. Their surface and interior are shining or much-shining, with a vitreous lustre. The fracture is uneven granular, passing into minute conchoidal: the fragments are indeterminate, blunt-edged. It is commonly translucent, occasionally semi-transparent or opaque. The colour of its streak is orange-yellow. It is very tender, somewhat brittle, and easily broken by the nail.

Sp. gr. according to Brugman 3.22. Brisson 3.33. It is idio-electric, acquiring the reflexion electricity by friction.

Before the blow-pipe it melts easily, burns with a blue flame, and a fulphurous arsensical odour, and is for the most part volatilized. Nitrous acid in a short time deprives it of its colour. It has never been accurately analyzed, but contains principally of arsenic and sulphur.

Realgar occurs native in the vicinity of Etna and other volcanos, and also in the primitive mountains of Germany, Hungary, and Switzerland. The substances that are found most frequently to accompany it are native arsctic, red silver, and galena.

The substances that it resembles are red silver and chro- mated lead; it may, however, be distinguished from the first by the following properties: the powder of the fiver ore is red, that of the realgar orange-yellow; the fp. gr. of the silver...
silver ore is the greatest, in the proportion of about 5 to 3; besides which, it does not become elective by friction, nor does it flame or volatilize by the blowpipe. Chromated lead is more than twice as heavy as realgar, and exhibits the same differences with regard to electricity and habitus before the blowpipe as red silver.

Native realgar is made of no use; for the purposes to which the artificial is applied, see § 11. of this article.


Its usual color is a beautiful lemon-yellow, passing on one side into sulphur-yellow, gold-yellow, or honey-yellow, and on the other into aurora red. It is found disseminated, and in masses. It is internally shining, or very shining, with a bright wax-like lustre, sometimes passing into the metallic. Its fracture is straight or curved foliated. In masses it rarely is more than translucent at the edges, but in thin plates it is semi-transparent. Its streak is of the same color as the mineral itself, only a little lighter. It is very tender, soft to the touch; when in plates it is flexible though not elastic. Sp. gr. 3.45: It is idio-electric, and in its chemical characters, corresponds with the preceding variety. It confounds of sulphur and arsenic, but the proportions are not ascertained with accuracy.

Orpiment is found in the Banat in Natolia and Serbia, at Nagyag in Transylvania, Pelfobanya in Hungary, &c.

It appears to be a mineral of late formation, being always found in strataform mountains. It is, for the most part, accompanied by clay, quartz, &c. &c. sometimes by realgar.

The crytaline forms that are usually attributed to this mineral are, upon the whole, referred to the preceding variety.


Its color is snow-white or yellowish, reddish, or greenish-white; it is found also of a clear smoke grey. Its common form is that of a superficial earthy friable crust on the surface of other minerals; more rarely it occurs in an indurated state, either flake-like, chaffed, or crytalized. The crytals are always extremely minute, sometimes capillary, bundled, interlaced, or diverging, sometimes in octahedrons, sometimes in quadriangular tables. When crytalized it appears to be translucent, but in the earthy state it is always opaque. It is very tender. often friable, brittle; has a very sharp disagreeable taste. Sp. gr. 3.7.

Before the blowpipe it gives out a white smoke, and the usual arsenical odour; the grey coloured, as being little oxydated, burns with a blue flame: after a time, but not so quickly as native arsenic, it is almost wholly volatilized. It is soluble in fifteen times its weight of boiling water: and appears to be an oxyd of arsenic nearly pure with a variable proportion of oxygen. The only Substance with which it is liable to be confounded, is the Pharmacolite, or native arsenic of lime: this latter however is insoluble in water, and leaves a considerable residue when exposed to the blowpipe.

The native oxyd of arsenic is a mineral of very rare occurrence; it is found at Joachimsthal in Bohemia, in Saxony, Hesse, Transylvania, and Hungary, in the vicinity of native arsenic, and in certain cobalt mines.


§ 2. Assay and Analysis of Arsenical Ore.

Arsenic is a metal in itself of so little value, and sonoxious to other metals by its obdurate adherence to them, rendering them brittle, and degrading their colour, that in all works in the great, and even in almost all chemical analyses, every method has been resorted to in order to drive off the arsenic, and its proportion to the whole mass has only been vaguely estimated by the loss of weight experienced during the process. The methods employed by Bergman, and the term of his contain parare, for ascertaining the quantity of arsenic in any of its ores are extremely imperfect; even the accurate Klaproni confounds the imperfections of his mode, and till the publication of Mr. Cheniev’s Analysis of the Arseniates of Copper and Iron, chemistry had attained no certainty in the resolution of this important problem. We shall only mention the advantages and defects of the methods recommended by Bergman, Kirwan, Klaproth, &c. and then proceed to the more accurate ones of Cheniev.

The decomposition either of the native arsenic or marcasite, Bergman proposes to treat the pulverized ore with four times its weight of nitro-muriatic acid, formed of one part nitrous and one a half or two parts muriatic acid. By this menftruum the silver will be converted into muriated silver, and will, together with the oxide, remain undissoved, and the arsenic and iron will continue in solution. The filtered liquor is to be evaporated to one-fourth of its bulk, and poured into water; the arsenic will thus be precipitated, and the iron may then be thrown down from the filtered liquor by ammonia, &c. Another way of proceeding is to boil the ore with dilute nitrous acid, in order to take up the silver, copper, &c., while the arsenic will remain behind in form of a powder, and may afterwards be taken up by nitro-muriatic acid, and precipitated from its solution by water.

For these methods, however, it may be objected, that the precipitation of arsenic from its solution in nitro-muriatic acid by water, is denied by some chemists; and even if the fact of precipitation be allowed, still it is certain that some of the arsenic will remain in solution. 2dly, Antimony, which is often mingled with arsenic ore, will also be thrown down by this process. 3dly, The Ammonia added to the remaining liquor, besides precipitating the iron, &c. will, by destroying the excess of the nitro-muriatic acid, allow the arsenic acid to combine with the oxyd of iron, and thus induce an error in the proportion of this last metal. 4thly, It appears from the uniform experience of Klaproni, and other eminent chemists, that arsenic is abundantly soluble in nitrous acid, and that the silver precipitated from such a solution, even by muriat of soda, contains a little arsenic; and whichever of the alkalies was afterwards used for throwing down the copper, &c. the necessary neutralization of the nitrous acid would afford an opportunity for the arsenic acid to combine with the oxyd of copper.

The native oxyd of arsenic is proposed by Kirwan to be dissolved in boiling water, and of course its proportion is to be ascertained by the loss of weight fulfilled by the quantity of ore thus treated. But (besides other objections) the dark-coloured varieties of this ore are probably not sufficiently removed from the metallic state, to be thus soluble. In order to decompose reale for arsenic, Bergman directs long-continued ebullition with muriatic acid, adding, if necessary, a little nitrous, till the insoluble residue becomes grey. The insoluble powder is the sulphur, and the arsenic solution is to be decomposed as before mentioned by water. In this process, however, the sulphur will still retain some arsenic; and a little of the sulphur will be oxygenated, and converted into sulphuric acid. Mr. Kirwan recommends
ARSENIC.

The analyses in the dry way of the arseneous ores are still less satisfactory than those in the humid way above recited. If sublimation in close vesseis has had recourse to, a very intense and long-continued heat will be insufficient to volatilize the whole of the arsene; the sulphur will also rise at the same time and produce orpinment. Roasting in a muffle, provided the ore is mixed with powdered charcoal, is more effectual; but in this case, not only the arsene, but the sulphur and antimony, if there happens to be any in the ore, will fly off, and the relative proportions of these must be estimated by mere guesses.

Klaproth's method of treating the unfulphurated ores of arsene may be deduced from his analysis of the arsenical silver ore, which consists of iron, arsene, silver, and antimony. He first digests the ore with moderately strong nitric acid, which takes up the arsene and the greatest part of the iron and silver: the addition of muriat of soda throws down the silver in the state of muriat combined with a few atoms of arsene; and afterwards, the arsene of iron is thrown down by potash; this precipitate being dried and weighed, is afterwards roasted with charcoal several times, till it ceases to give out arseneical fumes, and is tractable by the magnet: from the loss of weight sustained by the iron, the quantity of arsene is then estimated. This however, as Mr. Klaproth himself observes, is a very imperfect method. Another way practised by him in the analysis of the arsenical cobalt is, to digest the ore in nitric acid, which oxidises the arsene and takes up the greater part of it, leaving the residual arsene soluble in water. The nitrous solution is then evaporated as long as it continues to deposit oxys of arsene, and the oxys of cobalt afterwards separated by potash from the nitrous acid, is presumed to be pure, because it affords a sympathetic ink with mutric acid. From this humid analysis the cobalt ore is flated by Klaproth to contain 54.5 cobalt, 45 oxys of arsene and 4 sulphur: a specimen, however, of the same ore treated in the dry way, afforded only 44 cobalt; there was therefore required to make up the 100, 4 sulphur, and 55.5 regaline arsene. Hence it is evident, that little dependence is to be placed on the estimation of the quantity of arsene from the oxys precipitated by evaporation of the nitrous solution.

A more certain mode of ascertaining the proportion of arsene is furnished by Mr. Chenexiv. Let the ore, previously reduced to extremely fine powder, be digested in nitric acid sufficient to acidify and take up the whole of the arsene; pour off the clear liquor, and boil on the residue some distilled water; filter, and add the water to the nitrous solution; then neutralize the excess of acid by potash, taking care, however, not to have an excess of alkali, and add nitrat of lead as long as any precipitate takes place: wash the precipitate in cold water, dry and weigh it. As the arseneous ores often contain sulphur, it is possible that the arsene of lead thus procured, may be mixed with a little fluphat of lead: to decide this, digest the powder in some warm dilute muriatic or nitric acid, and the arsene of lead will be dissolved, leaving the fluphat behind. 100 parts arseneate of lead contain, of arsene acid 33, oxys of lead 63, water 4, and the 33 parts arsene acid, denote 22 of the metal.

§ 3. Reduction of Arsenical Ores, and Preparation of Crude Arsenic, and White Arsenic.

Arsenic is a substance of such small value and such little demand, that none of the proper ores of this metal are wrought in the great; the whole of the arsene of commerce being prepared in Saxony, by roasting the cobalt ores in the manufacture of zafir. These consist principally of arsene, cobalt, iron, and a little sulphur: the first and last ingredients of which are got rid of by roasting: this process, instead of being performed in the open air, is done in an oven, the flue of which runs horizontally to a considerable distance before it bends upwards. By this contrivance the arsene and sulphur, when liberated, are for the most part deposited in the horizontal flue in the form of a greyish meal, streaked with yellow (such portions as are nearest the fire being often melted into a feftamentary crystalline mass). In this state it is called crude arsene, or flowers of arsene; the yellow flecks proceed from the sulphur uniting with the arsene into orpinment; and besides this, it is also fulfilled with other impurities.

The white arsene of commerce is prepared from the crude, by mixing this last with potash, or as some advise, with lime, and re-subliming. By this the sulphur and other impurities unite with the alkali, and the white oxys is driven over into a heated receiver, where it melts into a heavy colourless transparent glass: by expoufure for a short time to the air, this glass becomes opaque, and resembles in its fracture the finest white china; and it is in this state that the white arsene of commerce is found in our shops and laboratories.

§ 4. Preparation of Reguline Arsenic.

The old method of procuring the regulus of this metal confuted in mixing white arsene with half its weight of black flux, one fourth part of borax, and the same proportion of filings of iron or copper, and fufing the whole as quick as possible in a crucible. When the whole is grown cold, there will be found, on breaking the crucible, a mass of impure metallic arsene, of a bluish white colour and considerable hardness and solidity. Probably this regulus was originally made from the crude arsene, in which case the addition of iron or copper was for the purpose of separating the sulphur according to the process mentioned for metallic arsene.

Klaproth found, however, that the arsene must contain a variable proportion of iron or copper when prepared according to this method, by which its external and chemical characters will be in some degree modified. Another way of obtaining the regulus is recommended by Brandt, to which there can be no objection, upon the supposition that he used crude arsene. He directs that white arsene should be milled with fop, and sublimed: in this operation the oil of the soap serves to de-arsenate the arsene, and the alkali to keep down any portion of sulphur that may have been combined with the arsene.

The white arsene of commerce being an almost entirely pure oxide of arsene, the reduction of it into the metallic state is very easily effected. The most eligible way is to mix the white arsene with any of the vegetable or animal expressed oils, till it becomes of the consistency of very soft glazier's putty; it is then to be made up into round or oblong pieces, and dropped into a Florence flask, so as not to adhere to the sides. The flask with its contents is to be put into a sand-bath, or over a gentle charcoal fire, and must be heated very gradually as long as any thick vapours proceeding from the decomposition of the oil are given out. When these cease, the heat may be increased till the bottom of the flask becomes obscurely red; shortly after the flasks may be withdrawn from the fire, and when cold, upon carefully breaking it, there will be found in the neck and upper part of the veffel, a crust of brilliant triangular crystals of oxide of arsene, semi-transparent, and
of a yellowish grey colour, below these there will be a thick amorphous crust of regulus, and some impurities will remain at the bottom. Let these products, except the impurities, be separated from the fragments of glass, and pulverized together with half their weight of charcoal; then re-sublime the whole asbefore, and the inside of the flask will be found lined with a crust and crys tallites of pure and shining regulus of arsenic. It is necessary that these sublimations should be performed under a chimney, for the vapours that arise are intolerably fatal, and extremely noxious to the operator, bringing on in a very short time headache, fickleness, and other unpleasant symptoms. Instead of a flask, an earthen retort may be made use of.


The fresh surface of arsenic is of a bright metallic lustre, and a colour between that of tin and lead; it very soon however tarnishes by exposure to the air, becoming first yellowish, then slightly iridescent, and finally black, in which state it is also wholly delusive of lustre. Its fracture is compact, granular; in hardness it is said to be superior to copper, but it is so brittle as to be reducible to power in a common mortar without any difficulty, being neither malleable nor ductile. It crystallizes in octahedral or tetrahedral pyramids. Sp. gr. = 8.3, according to Bergman, but according to Morveau = 5.76. It is not fusible to the small white lead, yet the fingers after handling it acquire a slight metallic odour; it is sublimed to the tallow by a peculiar acid flavour; and when heated to volatilization, diffuses a characteristic fetid alligaceous odour.


I. Effects of Heat.

Arsenic, when pure, is incapable of being melted; in clove vessels, at a heat inferior to that required for the fusion of tin, it begins to be volatilized, and is deposited in the upper and cooler parts unchanged in form or properties.

II. Effects of Atmospheric Air.

Atmospheric air at the usual temperature is slowly decomposed by this metal, the oxygenous part uniting with the arsenic, and converting it into a black oxyd, as mentioned § 5. At a heat of about 350° Fahr. the absorption of oxygen is much more rapid, and vapours of white oxyd begin to be visible, diffusing the well-known arsenical smell. At a higher temperature combustion takes place: thus if a vessel or crucible be made red hot, and a few pieces of arsenic be thrown in, a dense white vapour is immediately produced, accompanied by a light blue flame, and in a short time the whole is volatilized. This experiment must not be made in an iron ladle, for the affinity between the two metals at this temperature is so great, that artificial milfpicklet would be formed, and this being very fusible, the ladle would in all probability be found after the process to have a hole in its bottom.

III. Effects of Water.

Although arsenic is so easily oxydable, yet it does not appear capable of decomposing water; at least it may be immered in it for any length of time without exhibiting any signs of solution or oxydation; and a covering of this fluid or of alcohol is the best preservative of arsenic against the tarnishing effect of the air.

IV. Arsenic with Hydrogen.

This combination was first discovered by Scheele. If liquid arsenic acid be digested with zinc, an effervescence will take place; and the air thus disengaged, has a strong arsenical smell, inflames by the contact of a candle, and deposits on the inside of the vessel a brown film, which is metallic arsenic. The same gas may also be produced by granulated zinc in a hot solution of white arsenic in water with the addition of a little muriatic acid.

V. Arsenic with Phosphorus.

The union of these two substances was first observed by Marignaffi whose experiments have since been repeated and confirmed by Pelletier. Phosphuret of arsenic may be made in four ways: first, by subliming equal parts of phosphorus and white oxyd of arsenic, in which case, part of the phosphorus will be condensed at the expense of the metallic oxyd, while the remainder will combine with the metallic base; secondly, by subliming equal parts of reguline arsenic and phosphorus; thirdly and fourthly, in the bound way, by digesting equal parts of arsenic or oxyd of arsenic, with the same weight of phosphorus in a flask, containing a sufficient quantity of water. Phosphurated arsenic is volatilizable in a moderate heat, and is combustible on hot coals, exuding the mixed odour of its ingredients.

VI. Arsenic with Sulphur.

Both arsenic, and the white oxyd, are capable of uniting with sulphur, by means of fusion or sublimation, into a beautiful red or yellow mass, according to the relative proportion of the ingredients. The yellow is called orpine, or yellow sulphuret of arsenic, the red, realgar, or red sulphuret. The sulphur in the realgar is to the arsenic as 1 to 4 nearly, but in the orpine as 8 to 9 or 10. Both preparations are fusible, and may be sublimed, but the realgar is more easily melted, and with care may be obtained quite transparent, and of a bright red colour; hence it has been called arsenical ruby, rubine d'arsenique. The fp. grav. of orpine, according to Bergman, is = 5.15; but of realgar, only = 3.25.

These two substances have not been very accurately analyzed, and it is the opinion of several modern chemists, that the differences between them does not depend so much on the proportions of the sulphur and arsenic, as on the presence of oxygen in the one, and its absence from the other. Hence they call realgar, sulphuret of arsenic, and orpine, sulphurated oxyd of arsenic. This appears, however, to be a mistake, for the following reasons; when regulars of arsenic and sulphur are mixed together, the combination takes place without the extrication of any gas, but when the oxyd of arsenic is sublminated for the regulars, at the moment of combination a portion of the sulphur is converted into sulphureous acid gas, probably on account of a decomposition of the metallic oxyd. Further, it appears from the experiments of Bucquet, that by continued fusion orpinet is made of a much redder colour than before, by the volatilization of part of its arsenic; and as an additional confirmation, it may be mentioned that realgar, being sublimed either with metallic or oxydized arsenic, is converted into orpine.

It is not very easy to make realgar by the direct combination of its elements when they are in a state of purity, on account of the ease with which they are volatilized before they have experienced the proper degree of heat. In Saxony, where orpinet and realgar are made in large quantities, the method is to fill an oven like that described in § 3, with milfpicklet and iron pyrites, proportioning the quantities of each according as realgar or orpinet is intended to be produced. Now the sulphur and arsenic contained in these minerals being in natural combination with iron, require for their sublimation a degree of heat far greater than they could sustain without volatilization, if they were pure.

Sulphurated arsenic is wholly insoluble in water or alcohol. The nitrous and nitro-muriatic acids, especially when warm, take up the arsenie from the sulphur. The former of these, however,
however, except it is so concentrated as to act on the sulphur also, only takes up a portion of the arsenic from realgar, converting it into orpinment. Nitro-muriatic acid completely decomposes both the red and yellow sulphuret, hepatic gas being given out at the same time, a circumstance worthy of notice, as affording additional strength to the opinion mentioned above, concerning the flate of the metal in these compounds. Sulphuret of arsenic is also decomposed by distillation with two or three times its weight of corrosive muriatic of mercury, the acid and oxygen of the mercurial salt uniting with the arsenic into corrosive muriatic of arsenic, § 7, and the metallic base with the sulphur of the orpinment, forming cinnabar.

In the dry way, the fixed alkalis decompose orpinment into alkaline sulphuret and arsenic, which latter sublimes; but if the alkali is in excess, the arsenic is in part detached as well as the sulphur. A solution of caustic potash in water being boiled with orpinment, diffuses it completely, but by the addition of an acid a yellow precipitate is thrown down, which probably is a hydro sulphuret of arsenic. Quicklime and orpinment also unite by boiling in water, forming an arsenio-sulphuret of lime, which is sometimes employed as a Wine-test.

VII. Arsenic with Oils.

Any of the expressed oils being triturated with arsenic, gradually diffuses it, and thus acquire a dark colour and confidence like faly.

VIII. Alloys of Arsenic.

Arsenic unites with almost all the metals, debasing the red and yellow ones, and destroying in a great measure the luster of all the red, except tin. It renders those which are malleable and ductile, brittle, and for the most part increases their fusibility and hardness. For other particulars, see the several metals.

§ 7. Salts of Arsenic.

1. Reguline arsenic is acted upon by sulphuric acid when concentrated and affilied by heat: if the operation be performed in a retort with a pneumatic apparatus, there will be produced a considerable quantity of sulphurous acid gas, and sulphur will sublume into the neck of the vessel. What remains behind is a white mass similar to oxyd of arsenic, but combined with a little acid. By the addition of a fresh portion of sulphuric acid, the sulphated oxyd is taken up; as the liquor cools, however, a precipitation of crystalline grains happens, and these are sulphat of arsenic. This salt is much less soluble in water than white arsenic; when exposed to the flame of a blow-pipe, it fuses and begins to emit an arsenical smoke, but requires a much longer time for its volatilization than the simple oxyd. By repeated cohabitation with sulphuric acid, the arsenic approaches more and more to the nature of arsenic acid, but always contains in some degree sulphated.

2. Nitric acid when hot is readily decomposed upon reguline arsenic, being itself changed into nitrous gas, and the metal becoming oxydated. An addition of dilute nitrous acid at a boiling temperature effects a complete solution of the residual oxyd, and the liquor by evaporation and cooling may be brought to deposit crystals of nitrat of arsenic. This salt being abstracted with fresh nitrous acid, and then heated red hot, is wholly converted into arsenic acid. Nitrat of arsenic is sparingly soluble in water, and with the blow-pipe exhibits nearly the same appearances as the preceding salt.

3. Oxymuriatic acid when pure, fresh made, and in the form of gas, exercises a very powerful action on the regulus of arsenic, and exhibits a very striking and beautiful appearance. For this purpose, let a common fry or eight ounce phial be filled in the usual way with oxymuriatic acid gas procured from falt, manganae, and sulphuric acid, in order to have the acid as dry as possible (for the further securing of which, the gas produced about the middle of the process is the belt); lop the mouth of the phial with a cork, and place it on a table in an upright position; then reduce some reguline arsenic to a fine powder, and cautiously opening the mouth of the phial, thake in from the end of a knife, or in any other convenient way, a little of the powder. As soon as it comes in contact with the gas, a white vapour will first appear, and will be immediately followed by ignition of the metal, which in its passage to the bottom of the vessel will appear like a stream of fire: this phenomenon may be repeated with successive portions of powder till the acid is almost wholly decomposed. At the bottom will be found a white acidulous oxyd of arsenic. Liquid oxymuriatic acid also is capable of dissolving reguline arsenic; but during this process, the metal being oxygarnated at the expense of the acid, the result is muriat of arsenic.

Arsenic acid has a remarkable action on its own regulus, though the two appear to be incapable of combining into a proper salt. If the regulus is digested with the acid, its surface becomes shortly covered with a white powder, which is oxyd of arsenic. If the acid is kept in a flat of fusion in a retort, and small pieces of the regulus are dropped in from time to time, an inflammation and lubimation of white arsenic will be manifest at each addition. Hence it appears that the oxygen of the arsenic acid quits this to combine with the regulus, till an equilibrium is produced by the one and the other brought to a common flat of oxydation.

There are all the acids which are known to act upon reguline arsenic; many others however are capable of combining with this metal, when previously brought to the flat of white oxyd. The facts hence resulting we shall proceed to mention.

1. Muriatic acid when boiling will take up one third of its weight of oxyd of arsenic; a saline precipitate is produced by cooling, and if this is managed gradually, there are formed spicular crystals of muriat of arsenic. This salt sublimes wholly if exposed in clove vessels to a moderate heat. Before the blow-pipe on charcoal it is decomposed in part, and flies off, giving out at the same time the distinguishing odour of the metal. It is soluble, though sparingly, in warm water, and the solution is decomposable by an alkali, the oxyd of arsenic being thrown down.

Very dry and concentrated muriatic acid, or oxymuriatic acid, are capable of uniting with a much larger proportion of oxyd of arsenic than the liquid muriatic acid. This combination is called butter of arsenic, and is thus prepared: take one part of white arsenic, one and a half of red calcined sulphat of iron, and three parts of common salt; mix them accurately in a mortar, and sift in a glass retort from a sand bath. When the heat has been gradually raised so as to make the bottom of the retort nearly red, and nothing more comes over, the process is finished, and there will be found in the receiver two distinct liquors of different consistence. The lower one is of a clear iron brown colour, and is called butter of arsenic; the supernatant liquor is thinner, of a lighter yellowish colour, and is called oil of arsenic.

Butter of arsenic is a heavy thick liquor, excessively corrosive and poisonous; on exposure to the air it exhales a dense white suffocating vapour, deliquates, becomes turbid, and finally is spontaneously decomposed. When, instead of this gradual absorption of moisture, it is directly mingled with water, an immediate turbidness and precipi-
A S E N I C.

Fluoric acid, when digested on white oxvd of arsenic, dissolves a small proportion; and by evaporation and cooling, a granular crystalline salt is obtained, {

4. Boracic acid combines with white arsenic by means of water, but not in the dry way, according to Reuss. Equal parts of the oxvd and acid digested together in a little water are entirely diffused, and afforded by evaporation \textit{brous} of arsenic in powder or picipal crystals.

5. Phosphoric acid and oxvd of arsenic combine together without difficulty in the moist way, and afford crystals of \textit{phosphat} of arsenic. This salt is very sparingly soluble in water, and is decomposable by heat, the oxvd being volatilized.

6. Liquid tartaraceous acid unites by digestion with oxvd of arsenic into a crystallizable salt, \textit{tartrate} of arsenic; the properties of which are as yet in a great measure unknown.

7. Oxalic acid dissolves very calmly a considerable quantity of white arsenic, and the liquor affords by evaporation and cooling precipitate crystals of oxalot of arsenic, these melt in a very gentle heat, the water of crystallization with part of the acid is evaporated, and the residue affords a very beautiful tafine vegetation. Oxalot of arsenic is soluble both in water and alcohol, changes the colour of litmus tincture to red, and sublimes at a moderate heat; but at a higher temperature the acid is first destroyed and flies off, leaving behind the metallic oxvd.

8. Acetic acid, by long digestion and boiling with white arsenic, dissolves a small proportion, and deposits by cooling and evaporation small crystalline grains of \textit{acetat} of arsenic, which are very sparingly soluble in water.

9. Benzoic acid, according to Trommborf, dissolves white arsenic with considerable ease, and forms with it \textit{benzoyl of arsenic}. This salt appears in the form of long slender radiating crystals, posseted of a four and pungent tafle, which effloresce in the air, are very soluble in boiling water, and are again for the most part deposited by cooling.

10. Gallat of arsenic is not known, nor does the tincture of galls, according to the chemists of Dijon, produce any alteration in a solution of white arsenic.

11. Pruffiat of potash, when pure, throws down an abundant white precipitate from the solution of arsenic in muriatic acid. This is soluble in a large quantity of water, and by sublimation in the dry way affords a semi-transparent macl; it is probably a \textit{pruffat} of arsenic, but has been as yet scarcely at all examined.

The order of affinity of the various acids for oxvd of arsenic is not ascertained with much certainty. Bergman arranges them in the following order: muriatic, oxalic, sulphuric, nitric, tartaraceous, phosphoric, fluoric, arsenic, acetic, and prufic acids.

\textit{Oxvd of Arsenic, or Arseniac Acid.}

Oxvd of arsenic is prepared in the large way according to the method already mentioned in \textsection 3. When pure, it is of an opaque white colour; or if recently fused, is perfectly transparent and colourless. It crystallizes artificially (\textsection 4.) in three-fided pyramids, the vertical angle of which is generally deeply truncated; the crystals are transparent, of a dilute wine yellow colour, and not liable to effloresce or become opaque by exposure to the air, probably owing to their containing rather a smaller proportion of oxygen than the white arsenic of the fops. The fp. grav. of the fused oxvd is about \(=5\). It flows exces upon the tongue a sweetish acid taste. It is the most volatile of any of the metallic oxvds, rising at \(=83^\circ\) Fahr.

Pure water at the temperature of \(60^\circ\) Fahr, will dissolve about \(\frac{3}{5}\) of its weight of this oxvd, but when boiling it takes up \(\frac{7}{5}\) the greater part of which it retains even when cold; by evaporation, however, minute three-fided pyramidal
ARSenic.

Pyramidal crystals are deposited: the solution is clear and colourless. Alcohol also, when boiling, will diffuse about \( \frac{1}{\sqrt{\gamma}} \) or \( \frac{1}{\gamma^2} \) of its weight.

From many of its properties white arsenic seems to hold a kind of middle place between an acid and metallic oxid: thus, it reddens litmus tincture, but turns syrup of violets green, and its aqueous solution is incapable of causing an effervescence in the carbonated alkalies and earths. In the new chemical nomenclature it is denominated the arsenious acid (\( \text{acide arsenieux} \), \( \text{Fr.} \)); and the salts that are formed by its combination with the alkalies, earths, and metals, are called arsenites. These seem to hold nearly the same relation to arsenic acid and the arseniats, as sulphurous acid and the sulphites do to sulphuric acid and the sulphates.

The white oxid of arsenic is easily deoxidized by carbonaceous matter, by hydrogen, phosphorus, and sulphur, as already mentioned \( \S \) 4. and 6. and is reduced to the state of reguline arsenic: its habits with acids are described \( \S \) 7.

If to a solution of caustic potash in water there be added some finely powdered oxid of arsenic, the whole combines together by a boiling heat into a thick, viscous, scarcely fluid matter, of a brown colour, and nauseous smell, which as it cools becomes solid and brittle. This was named by Macquer \textit{liver of arsenic}, and in the modern system has obtained the name of \textit{arsenite of potash}. By long exposure to the air it becomes deliquescing; it is readily soluble in water, but has not been made to crystallize. The addition of any of the acids to the solution causes an immediate decomposition with a copious precipitation of oxid. Caustic soda produces the same general effects on white arsenic as potash; except that the arsenite of soda is crystallizable. Either of these salts, on being subjected to a full red heat, is decomposed; the greater part of the arsenic being volatilized in the form of a dense white smoke, while the remainder in the state of arsenic acid remains united with an excess of alkali. In the dry way, the white oxid of arsenic melts together with the fixed alkalies, forming a mass not easily decomposable by heat. According to Bergman, potash is capable of thus fixing twice its weight of the oxid, and soda three times its weight of the same.

When ammoniacal gas is passed for two or three times over heated white arsenic, the two substances contract at length to intimate an union as to bear even fusion without separating from each other. In the moist way also, a combination takes place by the help of a gentle heat, which differs essentially from the common liver of arsenic in that the acids occasion no precipitation. These are singular facts, and the nature of the arsenite of ammonia is well worthy of more notice from chemists than it has yet obtained.

Quicklime and barytes combine by fusion with oxid of arsenic into a vitreous mass, which however becomes milky and opaque by the continued action of the air. In the moist way, lime and white arsenic being boiled together form a soluble arsenite of lime, from which a precipitate is thrown down on the addition of an acid. Neither magnesia, alumine, nor fluxes, appear capable of uniting with white arsenic by fusion, but all or any of them combine into an easily fusible mass with the arsenites of potash, soda, lime, or barytes.

But few of the neutral salts have been examined with respect to their action on arsenious acid. The nitrates of potash and soda are decomposed by heat converting the arsenious into the arsenic acid, and therefore this combination is treated of in \( \S \) 10. (\textit{Arseniate}). The effect of white arsenic on acetic of potash, as recorded by Cadet and the other chemists of the academy of Dijon, is however too remarkable to be omitted. A mixture of these two substances being subjected to distillation, there first passed over a limpid liquor, with a slight arsentic smell; this changed the colour of syrup of violets red, caused an effervescence in a solution of carbonated alkali, and rendered the liquor turbid. The next product was of a reddish brown colour, and filled the receiver with a dense vapour of a must pelliferous smell, different however from that of arsenic: towards the end of the process, some reguine arsenic sublimed into the neck of the retort. The red liquor, after being from dried for three weeks in a reported phial, was still smoking, and exhaled the same detectable fumes as before; it produced no alteration in syrup of violets, and occasioned only a very feeble effervescence with carbonated alkali, depositing a little flaccid sediment: it occasioned a white precipitate in a solution of corrosive sublimate: being poured into a filter, in order to separate a yellowish thick portion that had separated from the ret, I nearly had a few drops passed through, than a dense suffocating vapour began to rise accompanied by an ebullition at the edges of the vesel and immediately followed by a beautiful rose-coloured flame which lasted several seconds.

A hot solution of arsénious acid dissolves some of the metals, particularly copper, iron, and zinc; the differences, however, between these and the metallic arseniats have not been ascertained with much accuracy.

\( \S \) 9. \textit{Arsenic Acid}.

The properities of the white oxid of arsenic that have been mentioned in the preceding sections, especially its ready solubility in water, its crystallizability, its taste, its habits with alkalies and metals, had long induced a suspicion of its saline nature. This suspicion was at length confirmed by Macquer\'s valuable discovery of the arsénical neutral salt (see \( \S \) 10. \textit{arseniat of potash}); but chemists still continued ignorant of the precise difference between this and the liver of arsenic (arsenite of potash). The illustrious Scheele first cleared up this difficulty, and pointed out a method of procuring the arsenic acid in a state of purity, and uncombined with any other substaniges. Bergman\'s valuable effay on the same subject confirmed and extended the discoveries of his friend and countryman, and more recent experiments have brought new accusations to the interesting facts already collected. Arsenic, as well as some others of the metallic bodies, is not only a combustible and oxidizable, but also an acidifiable base. It combines with oxygen, in at least three different proportions. By the spontaneous action of air and moisture, at the usual temperature, it is converted into the black oxid, an additional portion of oxygen is absorbed by the affinity of a higher heat, forming the white oxid; and by means, that we shall now proceed to mention, this latter sub stance may be saturated with oxygen, forming a perfect acid; the \textit{arsenic acid}, or Arsenic (\textit{acide arsenieux}, or \textit{arsenic acid, a dirine arsenieux, arsenilfueur}).

The method recommended by Scheele for the preparation of arsenic acid is the following.—Take two parts of finely powdered white oxid of arsenic, and put it into a capacious tubulated retort, adapted to a quilled receiver, and fixed properly in a found-bath; then pour in seven parts, by weight, of thong and pure muriatic acid, and close the tubulation of the retort; as soon as the acid begins to boil, the arsenic will be rapidly dissolved; and when the whole is taken up, lower the heat, and add three and a half parts of concentrated nitric acid; the mixture will immediately begin to foam, and there will be a copious extraction of nitrous gas.

The distillation is, at the same time, to be proceeding gradually, as long as any nitrous gas is produced; and when this ceases, one part more of the white oxid of arsenic may be
be added. As soon as this is dissolved, pour into the retort one and a half part of nitric acid, and a fresh effervescence will take place. The whole is now to be distilled to dryness, and towards the end of the process the heat must be increased till the bottom of the retort, with its contents, is red hot. After the retort is grown cold, it must be broken open, and there will be found within it a saline mass, which is the dry arsenic acid. In order to preserve it in its solid state, it must be put into a dry, well-stoppered phial. The proportion of acid thus procured is nearly equal to the quantity of white oxide employed. The use of the muriatic acid in this process, seems to be merely that of a solvent of the arsenic oxide, which is thus presented to the action of the nitric acid in a state of extreme division. The nitric acid is decomposed into nitrous gas and oxygen, the former of which flies away, while the latter is expended in acidifying the oxide; by the subsequent red heat, the undecomposed residue of the nitric acid, and the muriatic, are driven off in vapour, and the arsenic acid alone remains behind.

It generally, however, corrodes the retort, in a greater or less degree; whence the solid acid, when boiled with water, leaves a small insoluble residue of siles.

Bergman's method is to make a hot saturated solution of white arsenic in muriatic acid, and to add double the weight of nitric acid. The effervescence, however, thus occasioned, is so great, that a considerable portion of the arsenic is driven off in the form of fumes of arsenic, but the consequent produce of acid is much diminished, the quantity of this being estimated by Bergman at no more than 50 per cent. of the white oxide employed. Weigleb, by repeatedly retorting the liquor collected in the receiver into the retort with fresh nitric acid, obtained 12½ of arsenic acid for every 100 of oxide.

Another method of preparing this acid, also discovered by Scheele, is by oxymuriatic acid. Take one part finely pulverized black oxide of manganese, and mix it with three parts of strong muriatic acid, in a tubulated retort, large enough to allow ample room for the effervescence of the mafs: the retort is to be connected, in the usual way, with a Woulfe's apparatus, containing the white oxide of arsenic and a little water. By a gentle heat, the muriatic acid becomes oxygenated at the expense of the manganese, and passes into the bottles in the form of oxymuriatic acid; here it is decomposed, and the muriatic acid unites with part of the arsenic, while the oxygen combines with another portion. This compound liquor being then gently distilled to dryness, and towards the end of the process the bottom of the retort being made red hot, a complete separation will take place; in the receiver there will be found distilled muriat, or butter of arsenic, and the saline masses remaining in the retort is arsenic acid.

A simpler way of procuring the acid, is to heat together the white oxide of arsenic, with diluted nitric acid, in a retort, and when the solution is complete, to add some strong nitric acid, and proceed to distillation: much nitrous gas will be given out, and some orange-coloured acid will come over into the receiver; return this upon the mafs in the retort before it becomes dry, together with a fresh portion of strong nitric acid, and thus repeat the coagulation till the distillation of nitrous gas has almost ceased; then distil to dryness, and make the bottom of the retort red hot; all the remaining oxide of arsenic and nitric acid will be driven off, and nothing will be left behind but pure arsenic acid.

Besides the above proceedings, Pelletier has described another method of procuring the acid of arsenic. He mixes the white oxide with nitrat of ammonia, and subjects the mass to distillation in a luted retort. It is necessary to begin with a very gentle degree of heat, for the decomposition of the amnaniacal salt is otherwise so rapid, that a large portion of the oxide of arsenic is carried over into the receiver. But by proper management, the operation goes on more slowly and quietly; there passes over some nitrous acid, and by a slight increase of the heat, amnaniacal gas is also produced; towards the end of the process, a little white oxide usually sublimes, and a solid vitreous mafs of arsenic acid remains at the bottom of the retort, which, when heated red hot, becomes perfectly pure.

Arsenic acid is a solid vitreous mass, of a milky white colour: its sp. gr. according to Bergman, is 3.395. It suffes at a temperature a little below red heat, and becomes a transparent colourless fluid; but by cooling, it again becomes milky. When raised to a full red heat, it begins to boil, and gives out a portion of its oxygen; being slowly converted into white oxide of arsenic, which sublimes in proportion as it forms. If this experiment is performed in a covered crucible, after a time, almost the whole of the arsenic acid will be disiliated, and the residue will be found closely adherent to the sides of the vessel, having distilled a portion of its earth, and being thus converted into a permanent glazing. Arsenic acid is wholly insoluble in alcohol; but has a strong affinity with water, as is demonstrated by its exposure to a moist air: it dissolves completely in three to four times its weight of water, and has not been obtained in a crystalline form, either by refrigeration or evaporation. It has a four, caustic, metallic taste, and reddens litmus tincture, though it produces no change on syrup of violets. Charcoal powder, digested with the aqueous solution, exerts no chemical action whatever on it, but if the mixture is distilled to dryness in a close retort, as soon as the bottom begins to grow red hot, the whole mafs takes fire with violence, and the acid is deoxygenated, a beautiful sublime of regular arsenic being found in the neck of the retort. Sugar, and oil of turpentine, or any of the expressed oils, are charred even by digestion with a saturated solution of the acid. Six parts of the acid digested with one of sulphur fuffer no change, but when the mixture is distilled to dryness in a close retort, as soon as the water is driven off, and the sulphur begins to melt, a sudden combination takes place, accompanied by a copious extraction of sulphurous acid gas, and the whole contents of the retort rise almost instantaneously, and attach themselves to the upper part in the form of beautiful every; it combines with various alkaline earths, and metallic bases, forming a genus of compound salts, known in chemistry by the name of ARSENIATS.

None of the acids appear to have any action on the arsenic, though it is soluble in some of them, it may be separated again unchanged. It uniteis with the boracic and phosphoric acids by fusion, but neither suffers nor occasions any decomposition.

The order of its affinities, according to Pearson, are, in the moist way, lime, barityt, sforntia, magnesia, potash, soda, ammonia, alumine, metallic oxts, water.—In the dry way, lime, barityt, sforntia, magnesia, potash, soda, metallic oxys, ammonia, alumine.


1. Arseniat of Potash.

If a solution of arsenic acid is dropped into caustic potash, till the mixture excites to change syrup of violets green, and turns tincture of litmus red; thus fiewing an excess of acid; there will be obtained by evaporation a cryallizable salt, arseniats of potash. But if on the other hand pohtash be added to arsenic acid till the mixture turns syrup of violets green, but produces no change on tincture of litmus,
ARSENIC.

Arsenic, an uncrystallized salt is the result, which being evaporated to dryness, again deliquesces on being exposed to the air. These varieties of aroeniat potash are, however, rarely made by the direct union of their competent parts, but from the white oxyd of arsenic and nitre. The phenomena attending this process we shall therefore first explain, before we enter upon an enumeration of the properties of the salt.

Let any quantity of nitre be melted in a crucible, the bottom of which is heated red, and small portions of white oxyd of arsenic be projected at intervals, taking care not to add a second portion till the effervescence and disengagement of the nitrous gas occasioned by the former has ceased. By degrees the matter in the crucible, provided the heat is not augmented, will grow thick; and being then examined by solution and crystallization, will be found to yield litmus, and confit of arseniat of potash in a crystallizable state, and some undecomposed nitre. If, however, the mass in the crucible is kept for a few minutes at a little higher heat, it will enter into perfect fusion, and give out some nitrous gas; after a short time it will again grow thick, and being then dissolved in water, will turn fyrup of violets green, and refuse to crystallize, forming what Macler and the old chemists call nitre fixed by arsenic.

If a mixture of equal parts of nitre and white arsenic be put into a crucible (or still better, into a Florence flask), and the flask be heated gradually in a fused bath, till its bottom is obtrusely red, there will happen a very copious disengagement of orange-coloured vapours; when these cease, the vessel is to be withdrawn from the fire, and will be found to contain a white faine mafs, which, by solution in hot distilled water, and evaporation, will yield arseniat of potash, formerly collected after the invention of Macler's natural arsenic. When, on the contrary, two parts of nitre and one of white arsenic are subjected to the above treatment, the result is an uncrystallizable deliquecent mafs, the alkaline arseniat of potash. This may be converted into the crystallizable or acidulous arsenate, either by the addition of arsenic acid, in which case the whole will be arseniat of potash, or by sulphuric acid, which neutralizing the alkali, the liquor will yield by crystallization arseniat and sulphat of potash. In opposition to these facts, which are mentioned by Bergman, Scheele, Macler, and most modern chemists, Peltier has recorded an experiment, which, though he draws no conclusions from it, seems incapable of being reconciled with the theory of an alkaline and acidulous arseniat of potash. He mixed, according to the process of Lefèvre, two ounces of white arsenic with four of nitre, and put the whole into a large crucible, the mouth of which was then closed with a smaller inverted crucible pierced with a small hole to give vent to the vitrious vapour. It was subjected first to a very gentle heat for three hours, and then exposed to a red heat for eight hours longer. The matter thus prepared was a compact faine white mafs, easily separating from the crucible, and weighing one gross less than four ounces. Being dissolved in distilled water and filtered, there was separated a gelatinous mafs, confuting no doubt of some of the potash combined with the earth of the crucible. The clear liquor that passed the filter afforded by evaporation crystals of arseniat of potash, and the mother water contained almost wholly of caustic potash, which united quietly with sulphuric acid, and formed sulphat of potash. Here therefore we have an example of the crystallized arseniat formed in the midst of caustic potash, a circumstance wholly unaccountable if an exces of acid is necessary for this purpose.

Arsenat of potash crystallizes in rectangular quadrilateral prisms, terminated by four-angled pyramids. In close vessels it fumes at a low red heat, but shows no figures of decomposition; when made to boil violently in an open vessel it gives out oxygen, and acquires alkaline properties. It neither effervesces nor deliquesces in the air. It is soluble in about five parts of boiling water, and deposits crystals by cooling. It is decomposable by lime and barytes, either in solution or by fussion, the acid quitting the alkali to unite with the earths. The sulphuric, nitric, and muriatic acids, abstract from it the alkaline base, setting the arsenic acid at liberty, and forming sulphat, nitrat, or muriat of potash. It decomposes and precipitates almost all metallic oxyds from their combinations, forming insoluble metallic arsenits. In the dry way, it is decomposed by charcoal, and the product is a mixture of nitrate of copper and arsenic. Demyon, and Caro, then in the presence of iron, aluminium, and copper, lead to the three arsenites of potash, muriat, and nitrat. Sulphur, iron, and zinc, also decompose this salt, the requisite arsenic combining with one part of them, while the other is oxygenated.

2. Arsénat of Soda.

According to Scheele, if soda is satured with arsenic acid, crystals of arseniat of soda are obtained, similar in figure to those of the preceding salt; however, the solution of them has no effect on litmus, but turns syrup of violets green. Some arsenic acid superadd to, takes away the crystallizability of the mafs, which, when evaporated to dryness, deliquesces in the air. Pelletier, by decomposing nitrat of soda by oxyd of arsenic, in the manner already recited for preparing arseniat of potash, obtained a permanent salt in truncated hexahedral prisms. The other properties of arseniat of soda are unknown; probably, however, they are analogous to those of the preceding article.

3. Arsénat of Ammonia.

Liquef ammonia, satured with arsenic acid, affords by evaporation a salt similar in form to the comboidal crystals of nitrat of soda. It turns fyrup of violets green, but produces no change on litmus; by a gentle heat it becomes opaque, and part of the ammonia flying off, it exhibits an excels of acid. In this flate it forms long acicular acid crystals, which deliquesce in the air. When distilled, it first gives out some ammoniacal gas, then fumes, and again becomes solid after it has parted with some oxyd of arsenic which sublimes. By a further increase of temperature it again becomes fluid, and is now found to be wholly changed into arsenic acid. Muriat of Ammonia is decomposed by distillation with three parts of arsenic acid. There first rises muriatic acid, then amonnacal gas, afterwards oxyd of arsenic, and arsenic acid remains behind; hence it is obvious that part of the arsenic acid is deoxygenated at the expense of a portion of the ammonia.


If arsenic acid is dropped into lime water, a white precipitate is thrown down, which is soluble in a fresh portion of acid; the solution being now evaporated, small crystals are obtained of arseniat of lime. Another way of procuring this salt is by digesting chalk in arsenic acid. As effervescence ensues, and afterwards by cooling, copious crystals are deposited. Arsenat of lime is sparingly soluble in water, and the solution is decomposed by sulphuric acid, sulphat of lime being precipitated. The affinity of arsenic acid for lime, is also inferior in the moist way to nitric, muriatic, or even acetic acid. Yet nitrat, muriat, and acetate of lime are decomposable by means of double affinity, by the uncrystallizable arseniat of potash, and the arseniats of soda and ammonia, arsenat of lime being in all these cases precipitated. This salt, if heated strongly in a close crucible, enters into fusion, forming a white enamel-like mafs, but without undergoing any decomposition; by mixing with charcoal and subsequent heating, the greater part
part of the acid is oxygenated, and reguline arsenic is sublimed. Arsenic acid in the dry way has so powerful an affinity for lime, as to be capable of unifying with this earth to the exclusion of sulphuric, fluoric, and nitric acids.

5. Arsenif of Magnesia

Acid of arsenic, when digested upon magnesia to saturation, forms a coagulum; this being dissolved in a fresh quantity of arsenic acid, and evaporated, yields a jelly which by further privation of its moisture is converted into an uncrystallizable viscous mass. The sulphat, nitrat, muriat, and acetate of magnesia, are not decomposable by arsenic acid, but readily so by the alkaline arsienates; the precipitate thus produced is insoluble in water, but readily so by acids. When heated in a close vessel with charcoal, it exhibits the same phenomena as arsenif of lime.

6. Arsenif of Barytes

This salt may be obtained in an earthy form, according to Scheele, by digesting the acid upon barytes; at first the barytes dissolves readily, but when the acid is saturated, a spontaneous precipitation of arsenif of barytes takes place. Fourcroy informs us, that it may be procured in a crystalline form by mixing a warm concentrated solution of acetate of barytes and arsienate of potash; a deposition takes place, and bright pinnate needles of arsenif of barytes are deposited. In the moister way this salt forms undecomposable except by sulphuric acid and the easily soluble sulphates. In a full red heat, however, even sulphat of barytes is decomposed by arsenic acid, the sulphuric acid being volatilized.

7. Arsenif of Alumine.

Moist earth of alum is readily soluble in arsenic acid, and by evaporation it yields a gummy uncrystallizable mass. The alkaline arsienates will occasion a precipitate in sulphuric, nitric, and muriatic acids, previously saturated with earth of alum, and this precipitate is soluble in acids, though not so in water. It must however be remembered, that the earth precipitated from alum by an alkali is not pure Alumine, and therefore that the preparation here described is not arsienate of alumine. Scheele indeed expressly mentions, that the solution mixed with charcoal, and evaporated to dryness, and then ignited in a close vessel, yields a sublimate of orpiment, together with reguline arsenic and sulphuric acid, and that the residue, when dissolved in sulphuric acid, deposits after a time some crysalis of alum. The arsenic acid, even by a long digestion with white clay, does not take up any portion of it. One part of clay and four parts of acid combine by fuson into a viscous mass; and this, by being again heated with charcoal, affords a beautiful sublimed reguline of arsenic.

The combinations of orpiment, and the other earths with the arsenic acid, have not as yet been examined. The metallic arsienates will be found under the several metals.

§ 11. Historical Notice concerning Arsenic.

The native sulphuric of arsenic, was the only one of the arsenical ores known to the ancients. Arifotle speaks of the Σαουρσιος; and his pupil Theophrastus, in his treatise on minerals, mentions the Αργηνιος, corrupted afterwards by Dioscorides and others into Ασθιον. Pliny also, in his Natural History, describes the arsenicum, auripigmentum, and sandaracha. The Syrian orpiment, probably from its colour, was supposed to contain gold, and an ineffectual attempt by order of the emperor Claudius to extract this metal from it, is recorded by the Roman naturalist just mentioned. The sandaracha of Pliny is realgar, being reprefented by him as friable, of a ruddy colour, and analogous to litharge. Its arsenicum is expressly laid to be of the same substance as sandaracha, and is thus described.

... The colour of the bell is superior even to gold; the inferior sorts are paler, or else approach to the hue of sandaracha. It is of a fealy texture. The two last do not appear to have been considered of the fame nature as auripigmentum: and the only use to which they were applied, was that of a calcine in medicine, and a pigment. The first mention of white arsenic is in the works of Avicenna, who lived in the 11th century. Paracelsus affirms, that arsenic sublimed with egg-thills becomes like silver; and in 1673, Lumery published the method of obtaining the regulus by sublimation from a mixture of white arsenic, fixed alkali, and soap. Albertus Magnus and Beccher considered arsenic (by which they meant the white oxys) as of a saline nature. Kinkel was also of the fame opinion; and Macquer, by his discovery of the arsenic and arsenif of potash, demonstrated that in these combinations it held the place of an acid. Finally, Scheele proved, that the bafe of arsenic (according to the Stahlian theory then in vogue) was not only similar to, but was actually an acid, by discovering the method of obtaining it in an uncombined state.

Arsenic being found in the ones of many metals, often serving as a mineralizer to them, and adhering with great obliquity to them even when brought into the state of regulus, was long considered, like mercury, as an essential component part of metallic substances, nor was his opinion abandoned till the celebrated essay of Munnet in reply to a prize question proposed by the Royal Berlin Academy, in 1773, on the nature and peculiar agencie of arsenic in the formation of metals. In this treatise he shews arsenic to be a peculiar metal, essentially differing from all others, and instead of being a necessary component part of them, is often totally absent, and when present is so far from perfecting them, that it always deteriorates and obscures their characteristic properties.

§ 12. Uses of Arsenic.

In the regulus state, it is used to whiten Copper, and enters as an ingredient in several kinds of Speculum Metal. Oxys of arsenic is employed as a poison for rats and other vermin, and a flux in Glass-making. Orpiment and realgar are of extensive use in Dying and Calico-printing, and as a pigment. For the deletious properties of arsenic, and its medical uses, see the next article.

Pinii Hill. Nat. Bergman's Essays. Scheele's Essays. Pelletier, Memores de Chimie, vol. i. Encycloped. Method. art. Arsenique. Fourcroy, Syll, des Connoiss. Chem. vol. v. Macquer's Chemisches worterbuch, art. Arfenik. Gren's Syllenatiches handbuch der Chemie, vol. iii. Arsenic in Pharmacy, and its Operation upon the Human Body.—Arsenic is perhaps of all natural substances, that which exerts the most virulent and dreadfully active operation upon the living animal, when taken into the stomoch or any other part of the stomach. We are, unfortunately, too familiar with its effects as a poison; its cheapness and abundance rendering it easily accessible to malevolence, or obnoxious to carelesstifs, and the history of almost every year adds to the number of sufferers from this formidable mineral.

Nevertheless, as every poison, when judiciously managed, may be converted into a powerful medicine, several very skilful practitioners have attempted, and not without advantage, to add this substance to the materia medica, and hence the effects of arsenic become important to the physiologist in a double point of view, both that he may relieve and counteract them, when they operate as a poison; and manage them with judgment and caution, when they are intended to cure disease.
ARSENIC.

We may begin by observing, that all the preparations of arsenic appear, as far as experience goes, to operate in a similar manner, though some with much more activity than others, in proportion to their quantity; and likewise it is fully ascertained, that sulphur moderates the operation of this metal in a very striking manner, as indeed it does that of all the other metallic medicines. This comparative mildness of the sulphur may be the reason why the native opium and garlic have been employed medicinally for ages by some of the oriental nations, particularly, among other caes, as an antidote to the bite of the cobra, and other venomous serpents; and we may remark, that the native arsenical sulphures (as observed by Holmann, and confirmed by subsequent experiments) are much milder and safer in their operations, than any of the artificial combinations of these two minerals.

When the active arsenical salts (the white arsenic for example) have been taken into the stomach in the quantity of a few grains or upwards, the most dreadful confusions are observed to succeed: these are, first, a most horrible and almost indescribable anxiety at the pit of the stomach, to which succeeds a very acute burning pain in this organ, generally attended with violent retching and vomiting, whereby, indeed, the life of the sufferer is sometimes preferred, owing to the rejection of the arsenic; this is often followed with fever purging, and the pain proceeds with increased virulence, to the bowels, and almost the whole of the alimentary canal; to this succeeds, in a shorter or longer time, convulsive tremors of the limbs, cold sweats, and a very sudden and characteristic swelling of the emphysematous kind, which pulls up the face, the neck, and at last every other part of the body. If no relief be obtained from these dreadful symptoms, they quickly proceed to the destruction of life; the unhappy sufferer becomes insensible to surrounding objects, lying on his belly, with every muscle distorted by the violence of the pain, his hands clenched, his eyes bloodshot and goggled, his jaws now immovably fixed, and unable to swallow either solids or liquids, his limbs convulsed with severe cramps, his face and neck so much swollen that the features can hardly be recognized, till at last death terminates his agony. On inspecting the body after death, the stomach is always found highly inflamed, partly gangrenous, and often actually corroded by phosphated spots. The same inflammation and partial mortification also extend in mottled caes to parts of the small intestines. The body is laid to putrefy with remarkable rapidity.

Even when persons have recovered from poisonings by arsenic, they feel its effects long after in griping pains, tremors of the limbs, partial paralysis, loss of appetite, and often a lingering hectic fever, which remains for a considerable time, and without great attention to health, are apt materially to injure the constitution. An exposure to the fumes of arsenic occasions similar accidents, particularly griping, bloody urine, and contraction of the body, and sometimes a general eruption like the nettle-rash; and hence in all chemical operations with this dangerous metal, the operator should be particularly cautious of avoiding its noxious fumes.

Arsenic, when applied to any wounded or ulcerated surface of the body, is equally liable to produce the above-men- tioned symptoms in a greater or lefs degree; but as the first that appear are generally pains in the stomach and bowels, and swelling of the face, sufficient warning is hereby given to withdraw the cause of them.

A variety of remedies against the poison of arsenic has been proposed, all of which are intended to fulfill the two indications, to remove the noxious ingredient, and to protect the alimentary canal from its baseul operation. The first object is to get rid of the poison by moli copious vomiting and purging; and for this purpose all the substances known to produce these effects, may be employed with the greatest freedom. It has been thought that the rougher mineral emetic and purgative medicines should be avoided, and certainly the milder vegetable substances appear the most eligible; but it is of such infinite consequence to apply an immediate remedy, that the preference due to one over another medicine can hardly ever be equivalent to the mischief incurred by allowing this most corrosive and deleterious of all poisons to remain a moment longer in the stomach than can be avoided. Hence the first emetic medicine at hand is always the bell, nor should the mechanical means of exciting vomiting, as by thrusting a feather down the throat, and the like, be neglected. In the intervals of vomiting, the stomach should be deluged with any mild muclaginous liquid that is at hand; milk, gruel, linseed tea, broth, oil of any kind, or even warm water, in the largest possible quantity, should be taken, and where the arsenic itself excites violent vomiting, as is often the cafe, no other remedy than these muclaginous or oily liquids is required. These should be affiously perferred in till the burning pain and other symptoms produced by the arsenic are removed, and only the forenses consequent to such a violent exercise of the alimentary canal remains; after which a cautious and judicious use of opiates will prove of material benefit: but the rate of health will require much attention for a considerable time, before the constitution can entirely recover the effects of so rude a shock. When the poison has remained too long in the stomach that the sufferer lies insensible, racked with pain and unable to swallow, recovery seems to be hopeless; in such cases, the most probable method of exciting vomiting is to lay some tartar emetic upon the tongue, part of which may perhaps be carried by the saliva into the stomach, and relieve it from the noxious mineral.

Some ingenious men have endeavoured to discover an antidote to arsenic, in the proper meaning of the term; that is, a substance which may prove a peculiar corrective to its baneful effects, by uniting with it when in the stomach, and destroying its acrimony. The well-known effect of sulphur to mitigate the operation of all metallic bodies, readily suggested this as the desired remedy, and the liquid alkaline sulphuret was proposed by Navier, an eminent physician of Chalons in France. Fourcroy has suggested the liquid hydrogen sulphides (or solutions of sulphurated hydrogen in water, in which the sulphurated mineral waters are familiar examples) as an improvement on Navier's remedy. Experience, however, has not confirmed the utility of either of these preparations. It is true, that if the poison and the antidote were previously mixed, and in a state of solution, the former would be disarmed of its terrible powers; but to tru to the chance of a mere chemical operation in an organ so irritable as the stomach, so dreadfully susceptible of active inflammation, and actually suffering under a violent injury, which is halting the destruction of the whole system, is to carry the idea of a laboratory much beyond the bounds of sober prudence and found practice.

It has been urged, however, that after the immediate danger from arsenic has been removed by the liberal use of emetics and emollient liquids, much advantage may be derived from the use of the liquid sulphures. But at this period we have not (in all probability) any of the arsenic to remove, but only the inflammation, the effects of arsenic, and on what ground can sulphurated hydrogen be supposed to be of use in inflammation of the stomach and bowels? The medical chemist is for the time called upon the magistrate to ascertain the presence or absence of arsenic in the stomach of persons who have died from some of the violent
A R S E N I C.

It is a matter of common observation, that no vegetable or mineral poison, however virulent, excels, which in diminished quantity and by prudent precautions may not be converted into a valuable remedy. This observation will apply even to arsenic, and we have the most respectable testimony to its value in the cure or relief of some complaints which entitles it to considerable notice. The medical use of the fulphures of arsenic may be traced back to very early times, and the Greeks and Romans appear to have used it with considerable freedom. Dioscorides observes that the arsenic (arsenicos) is found in the same minerals which produce the haemath. The text for medicinal purposes, he adds, is, of a golden colour, unmixed with any other substance, which easily separates into feaks, and comes from Myia on the Helenesport. An inferior sort comes from Pontus and Capadocia. It is prepared by roasting on hot coals, with constant stirring till it takes fire, and alters in colour, when it is to be cooled and carefully pulverized. The haemath is prepared in the same manner as the arsenic or orpiment, and poisons the same virtues. When taken internally, they have a violent corrosive and afflactive operation, exciting a burning on the skin, and causing the hair to fall off. These arsenical powders were used principally as external applications, mixed with pitch, oil, or fat, against a variety of cutaneous complaints, itch, phthisiafia, and other deformations of the skin, and also to ulcers of the nostrils and mouth, and condylomata.

Much attention has been bestowed in modern times to the power said to be possessed by arsenic of relieving or curing cancers, when employed both as a topical application, and taken into the stomach. The progress of this disorder is so dreadful, and the remedies usually employed have proved so inadequate to stop its ravages, that any medicine, however severe, may be employed without censure, which affords a chance of permanent relief. We have still to regret that the flattering hopes of a cure, and the real benefit often produced by this metal, have not been confirmed by frequent experiment; but the virtues of this remedy, however, are too important to be neglected. Several medical practitioners and empirics have gained much credit for supposed cures of cancers by remedies which appear to have been arsenical; and Mr. Juffamond, in his valuable Surgical Treatises (London, 1780), gives the recipe of an arsenical cation, called "the earl of Arundel's receipt to cure a cancer," and found in the Harleian MSS, which appears to have been divulged by a woman in the lower order of people, in the year 1658, whose father had long employed it for the cure of cancers.

Mr. Juffamond, in his ingenious work above quoted, gives the history of many cases of cancer in different stages, in which the following arsenical preparations were topically applied:

1. The earl of Arundel's receipt above mentioned, composed of one ounce of yellow arsenic, and half an ounce of boul arsenic; or cote of one ounce of the yellow arsenic, half an ounce of the red precipitate, and half an ounce of boul arsenic.

2. A sulphur of arsenic, formed in the following way: Take four pounds of sulphur, and one pound of white arsenic, mix and put them into a glass retort, on a fend heat, and lute to the retort a long neck and receiver: raise the fire gradually till the mixture be fused: reject the sublimed portion, and refine the fixed matter beneath, which must be deeply leviaged.

3. A mixed sulphur of arsenic and antimony, formed by melting together in a crucible, with a very moderate heat, the native black sulphur of antimony (or the common antimony...
of the tumour. This is to remain till the escharotic separates spontaneously. The ranunculus, which is an acid plant, is not here an useless addition, as it afflicts in separating the cuticle, and till this is done the arsenic is scarcely able to act.

5. The arsenum citrinum (gelber arsénik) employed at Vienna, is one of the strongest of these preparations, being composed of ten parts of arsenic sublimed with one of sulphur. When used, the scrapings of it are laid on the cancerous ulcer till it is confluent. The pain which it occasions is most severe.

Mr. Frobure's arsénical remedy (Reméde éprouvé pour guérir radicalement le Cancer occlu, ou ulceré, Paris, 1775), which excited much attention at the time, is the following:

6. Take one pint of water; one ounce of extract of rhubarb; three ounces of Goulard's extract; one drachm of liquid laudanum; and ten grains of arsenic; mix them into a liquid, with which the cancer is to be smeared every morning and evening.

Lastly, of the external applications, we may mention the following, which is simple, and probably as efficacious in ulcerated cancer as any of the preceding.

7. Take a solution of white arsenic in water, in the proportion of one grain to two pints, mix it with crumb of bread into a poultice, and apply it to the open sore.

Frobure appears to be the first who ventured to recommend the internal use of arsenic in the cure of cancer; a practice which has rarely been openly followed, though probably this mineral forms the basis of many of the empirical remedies for this disease. Frobure's internal arsénical medicine is the following:

8. Take of white arsenic, two grains; of syrup of chicory with rhubarb, half an ounce; of water, one pint. Of this one tablespoonful is given every morning and evening, in an ounce of milk, with half a drachm of syrup of poppies. The dose is to be gradually increased as the patient can bear it.

Mr. Juilamond also was able to give internally as much as five grains of the arsénical sulphuret (N° 2.) daily, without injuring the patient.

The inference which the reader will be disposed to draw from all that we have given, concerning the efficacy of arsenic in cancerous complaints, will not probably be very encouraging to its use. The actual pain attending its application is always very acute, though perhaps not more so than the disease itself; but the quantity of the remedy here requisite, either for external or internal use, is so considerable, as to incur great danger of poisoning the constitution irremedially, and inducing calamities almost equal to those which it is designed to counteract.

With more satisfaction we can conclude our account of this mineral, with a history of its employment in another oblique and often dangerous disorder, in which it promises what certain advantage, unattended with any considerable risk where managed with great prudence and discretion. This is, in obliterative and lingering agues, such as have resisted ordinary remedies, and are proceeding gradually to undermine the constitution by their periodical and repeated paroxysms.

We owe the introduction, or at least the publicity of this remedy to Dr. Fowler's highly valuable memoirs on experimental cases, undertaken in the Stafford infirmary, in 1784, and published in the following year. The circumstance that directed his attention to this remedy, was the very great sale and successful operation of certain patent aqve drops, which were (probably with reason) supposed to be a preparation of arsenic.

Dr.
Dr. Fowler’s arsical solution is thus prepared.
9. Take white arsenic in fine powder, and pure salt of tartar, of each sixty-four grains, put them into a Florence flask, or other glass vessel, along with half a pint of distilled water; heat them slowly to boiling, till the ingredients are dissolved; when cold, add half an ounce of compound spirit of lavender, and distilled water sufficient to make up the whole quantity one pint, or rather fifteen ounces and a half troy-weight.

Of this solution, one ounce, apothecaries measure, contains four grains of arsenic, or one dram, half a grain; and Dr. F. calculates each dram to be equivalent to eighty drops.

In preparing this liquid, the operator should be aware that the salt of tartar of the shops, even the purest, seldom makes a perfectly clear solution with water, but leaves a small earthy sediment, which no continuation of the boiling will dissolve. Instead of this alkali, twice the weight of pure nitre has been employed, which promotes the solubility of the arsenic, and is perhaps somewhat preferable to the salt of tartar. These salts are not necessary to the immediate solution of arsenic, but they prevent this metallic oxide from separating again from the water by long keeping.

The proportion of arsenic to water, in the solution, may be varied from the sum above given; but as white arsenic requires eighty times its weight of cold water to remain dissolved, not less than this quantity should be employed, and the nitre or alkali should never be omitted, as it is of the utmost importance for the practitioner to know precisely the dose of arsenic which he prescribes.

Dr. F. found that for the cure of intermitents it was of importance to give the arsenic in divided doses as fast as the patients could bear it, without experiencing inconvenience from its poisonous effects. Strong adults could generally bear about ten drops of the solution (equivalent to one-sixteenth of a grain of arsenic) for a dose, which he repeated twice, or, if convenient, thrice a day. By flow increare, some were able to bear as much as twenty drops for a dose, and this course was continued for five days, when, if the fits of the intermittent were suspended, the drops were interrupted for two or three days, and then resumed for three days longer to prevent a relapse.

Infants could bear about two drops twice a day, and young or delicate persons took the solution in intermediate doses from two to ten or twelve drops.

The operation of this powerful remedy was truly surprizing in checking almoast immediately, and finally removing the paroxysms of the most obstinate intermitents, some of which had relapsed back and other remedies for a considerabe time. In a few, however, it failed entirely; and in others the poisonous effects of the arsenic came on so speedily that it could not be continued, and the cure was completed by bark and other tonics.

Every practitioner will be aware of the great caution necessary in the exhibition of a remedy, which, though safe in prudent hands, might induce the most dangerous accidents if exposed to careless use or ignorance. In most of the successful cases, the medical removed the diseasewithout producing any of the inconveniences attending its use in larger doses; but when the arsenic began to show its poisonous effects, the symptoms were, nausea, often accompanied with a flight gripping and purging, swellings of the soft integuments of the body, particularly the face, sometimes ureasheats at the flomach, and a flight eruption like the nettle-rais; and, in a very few instances, head-ach, sweat, and flight tremors. By attending to these ferior and very characteristic warnings, and by the assiunce of gentle appe-
ARSICARITA, an episcopal see of Africa, in Numidia.

ARSICUA, a town of Germany. Ptolemy.

ARSIKARITUS, a promontory of the western coast of Africa, in Lybia Interior, now Cape Verdo, or Cape Bajaerivo.

ARSNIA, ARSCHI, a town of Asia, in Armenia, W. N. W. of Amida, and near it.

ARTSINNAKTANUS, an episcopal see of Africa, in Mauritania Caesariensis.

ARSIKOE is a name given to several places not only in Egypt, but also in other countries; and according to Bryant (Anc. Myth. vol. i. p. 209.), it was synonymous with Arsinoe, Arschließen, and Arsina. Arsis, says this writer, is a compound of Areus, Sol's son; and most places to denominate will be found famed for some fountain. To this purpose he observes, that Arsinoe in Syria had its name from the streams which issued out of the rising ground on which it stands; Arsine and Arsiana in Babylonia had fountains of bitumen; Arsine in Armenia was a nitrous lake; near Arsinoe upon the Red Sea were streams of bitter waters; and Arsinoe near Epheus had waters equally bitter. The first Arsinoe we shall mention was a town of Egypt, situated on the whole side of the Arabian gulf near its extremity, and not far from the situation of the modern Such. Ptolemy and Strabo mention this city; and the latter says, that it was called by some Cleopatra. It is said, that it was called Arsinoe from a queen of that name in the time of the Ptolemies; and that Cleopatra embellished it with new buildings, whence it was called after her name. In order to bring the trade from India, which began to revive at Tyre its ancient flation, to center in Alexandria, Ptolemy Philadelpbus undertook to form a canal, an hundred cubits in breadth, and thirty in depth, between Arsinoe and the Pelusiac branch of the Nile; and Mr. Rossell states the distance between Pelusium (Timah), and Arsinoe (Suez), at fifty-six British miles; and by means of this canal he proposed to convey the productions of India to that capital wholly by water. But the work was never finished. A second Arsinoe was a town of Egypt, the chief place of a neme which bore its name, on the west side of the Nile, above Memphis, south of Acanthus and north of Ptolemais. It was also called the City of Crocodiles, because the inhabitants worshipped that animal, and bred some of the species in the neighbouring lakes. This city must have stood at some distance from the river, since Ptolemy calls it a Mediterranean metropolis. It retained its name Arsinoe in the time of Adrian. Imperial Greek medals were struck in this city in honour both of Trajan and Adrian. It is now called Pajoum. The province, of which it was the capital, contained the Labyrinth and its twelve palaces, the lake Morris, and the pyramids described by Herodotus, but not existing in the time of Augustus, as they are not mentioned by Strabo; and it is extolled by Strabo (l. xvi.) for its beauty, fertility, and the variety of its productions. It abounded with wine, corn, vegetables, and seeds of every kind. A third Arsinoe was a port of the Red Sea, to the left of the entrance into it and near the promontory Dirce or Dirc, according to Strabo and Ptolemy. This was sometimes called Berenice. A fourth is placed by Strabo on the Red Sea, considerably more to the north than Philoterus. Its warm, saline, bitter waters flowed from a high rock and ran into the sea near this town. A fifth was a town of Africa, in the Cyrenaica, between Leptis and Ptolemais; the fame that was formerly called Teuchiara. A sixth was a town of Caelofoya, according to Steph. Byz. A seventh, a town of Asia, in Syria, situated on a hill near a valley which was near Damascus. An eighth, a maritime town of Asia, in

Clodia, to the call of the river Ormagedus, in the district called Cetis; it had a port and road for ships. A ninth, a town of Greece, in Aetolus, at the passage of the Achelous, near Canopus; to called from the wife and master of Ptolemy II., and mentioned by Cicero. A tenth Arsinoe, according to Strabo, one of the names given to the city of Ephesus. An eleventh Arsinoe is a maritime town of the island of Cyprus, situated to the west between old and new Paplos: it called from a queen of Egypt, Cyprus having been long subject to the Ptolemies. It had a port, a temple, and a grove. A twelfth Arsinoe was also a small town of Cyprus, on the northern coast, at the bottom of a small gulf closed to the north-west by the promontory Acantha. 13. There was another town of this name on the eastern coast of the same island, to the south-east, and near Salamis. 14. Arsinoe was also the name of an inland town of Cyprus.

ARSINOE in Entomology, a species of Papilio (Nymph. Gem.) found in the island of Ambys, the wings of which are yellow, indented, fulvous, spotted with black; and the posterior ones marked both above and beneath with two osculated spots. It is figured by Seba and Cramer.

ARSIS, and THESIS, in Proseody, are names given to the two proportional parts into which every foot or rhythm is divided.

Arbis and thesis are used as musical terms when the subject of a fugue or point is inverted or reversed; i.e. when one part rises and the other falls. These two words are Greek: Aris comes from aris, tos, I raise or elevate; thesis, deposition, reminisa, a depression or lowering. These terms were applied by the ancients to the motion of the hand in beating time.

ARSISSACA, in Ancient Geography, a town of Asia, situate in the interior part of Media. Ptolemy.

ARSISSA, a lake of Asia, in Armenia, about a degree from east to west, called the lake of Van or Arciab; between 37° 42' and 38° 30' N. lat.

ARSISSIT, a country of Asia, near mount Coronos in Hircania. Ptolemy.

ARSK, a town of Ruffia, in the government of Cahan, forty miles N. E. of Cahan. N. lat. 56° 20'. E. long. 49° 34'.—Also, the name of one of the thirteen districts of Cahan, situate on the river Cahanaka.

ARSKOG, a large forest in the northern part of Sweden, in the province of Medelpad.

ARSLAN, a fortified place of Asia, in Pereia, near Cahan, in the province of Erach.

ARSMART, in Botany. See Polygonum.

ARSOFFA, a fortified town of Asia, in that part of Arabia which is called the Defert of Syria; supposed by some to be the name of the pool in the Palmyrene territory, mentioned by Ptolemy: it is ninety miles south-east of Aleppo.

ARSON, ab ardendo, in the Law of England, a felony at common law, in maliciously and wilfully burning the house, or out-houses, of another, by night or by day. See Hawkins's Pleas of the Crown, book i. chap. 59.

5 K
The owners, though not contiguous to the dwelling-house, nor under the same roof, that were parcel thereof, such as barns and stables, may be the subject of arson: and this by the common law, which also accounted it felony to burn a single barn in the field, if filled with hay or corn, though not part of the dwelling-house. The burning of a stack of corn was anciently likewise treated arson. The offence of arson, strictly so called, may be committed by wilfully setting fire to one's own house, provided one's neighbour's house is thereby also burnt; but if no mischief is done but to one's own, it does not amount to felony, though the fire was kindled with intent to burn another's. For by the common law, no intention to commit a felony amounts to the fame crime; though it does, in some cases, by particular statutes. However, such wilful firing one's own house in a town, is a high misdemeanour, and punishable by fine, imprisonment, pillory, and perpetual forfeitures for the good behaviour. And if a landlord or receiver fires fire to his own house, of which another is in possession under a lease from him, and from thence whole estate he hath, it shall be accounted arson; for, during the lease, the house is the property of the tenant. A bare intent or attempt to burn a house, by actually setting fire to it, unless it absolutely burns, does not fall within the description of "incendit et combuisset," which were words necessary, in the days of law-latin, to all indictments of this kind. But the burning and confounding of any part is sufficient; though the fire be afterwards extinguished. Also, it must be a malicious burning; otherwise it is only a trespass; and therefore no negligence or malice amounts to it. But by 6 Ann. c. 31; any servant, negligently setting fire to a house or out-house, shall forfeit £8. or be sent to the house of correction for eighteen months; in the same manner as the Roman law directed: "eos, qui neglexerint ignes apud fe habuerint, fuluhas vel flagellis cessi." The punishment of arson was death by our ancient Saxon laws. And in the reign of Edw. I., this sentence was executed by a kind of "lex rashionis," for the incendiaries were burnt to death; as they were also by the Gothic confessions. The statute 8 Hen. VI. c. 6, made the wilful burning of dwellings under some special circumstances the crime mentioned, amount to the crime of high treason. But it was again reduced to felony, by the general acts of Edw. VI., and queen Mary; and now the punishment of all capital felonies is uniform, namely, by hanging. The offence of arson was denied the benefit of clergy by 31 Hen. VIII. c. 1, but that statute was repealed by 1 Edw. VI. c. 13, and arson was afterwards held to be out of clergy, with respect to the principal offender, only by inference and deduction from the statute 4 & 5 P. & M. c. 4, which expressly denied it to the accessory before the fact: though even it expressly denied to the principal in all cases within the statute 9 Geo. I. c. 22. Blackl. Com. vol. iv. p. 226. &c.

Arson Appeal of. See Appeal.

Arstad, in Geography. See Arad and Rowandie.

Arse, a sea-port town of Pandion, in the Mediterranean, six miles north-east from Joppa. It is in ruins: but in its vicinity there is a small island called Airsas.

Arsuba, in Ancient Cyprian, a term used for the melting of gold and silver, either to refine them, or to examine their value. See man.

The method of doing this is explained at large in the Book of the Esquecher, ascribed to Gervaice, in the chapter De Officio Militis Argentarii, being in those days of great use, on account of the various places and different manners in which the king's money was paid.

Art. Artura is also used for the loss or diminution of the metal in the trial. In this sense a pound was said tot audere aliaris, to lose so many pennyweights.

Artura is also used for the dust and sweepings of fitters, and others who work in silver, melted down. Dunciage.

Arbura is also used, in some writers, for the diffuse called crysiter, or ignis focer.

Arthusita, in Ancient Geography, an episcopal see of Africa, in Bizacum.

Art, is defined to be a habit of the mind prescribing rules for the due production of certain effects; or the introducing the changes of bodies from some fore-knowledge and design in a person endowed with a principle or faculty of acting.

The word art is derived from zps, utility, profit; and is found in that sense in Aichlyus.

According to lord Bacon, it is a proper disposition of the things of nature by human thought and experience, so as to make them answer the designs and uses of mankind. Nature, according to that philosopher, is sometimes free, and at her own disposal; and then the manufactures hereafter in a regular order as we see in the heavens, plants, animals, &c. Sometimes she is irregular and disorderly, either through some uncommon accident, or depravation in matter, when the resistance of some impediment prevents her from her course; as in the production of monsters. At other times she is subdued and fashioned by human industry, and made to serve the several purposes of mankind. This last is what we call art.—In which sense, art flounders opposed to nature. Hence the knowledge of nature may be divided into the history of generation, or pregeneration, and of arts.

The first confiders nature at liberty; the second, her errors; and the third, her restraints.

The ingenious Mr. Harris, after purifying several regular gradations in his inquiries concerning this subject, proceeds from it an answer to four different questions. If it be asked, "What art is?" We have to answer, "It is an habitual power in man, of becoming the cause of some effect, according to a system of various and well-approved precepts." If it be asked, "On what subject art operates?" We can answer, "On a contingent, which is within the reach of the human powers to influence." If it be asked, "For what reaon, for the fake of what, art operates?" We may reply, "For the sake of some effect good, relative to human life, and attainable by man, but superior to his natural and un instructed faculties." Lastly, if it be asked, "Where it is the operations of art end?" we may say, "Either in some energy, or in some work." Harris's Three Treatises, dialogue i.

Art is also used for science or knowledge, reduced into practice.

Several of the schoolmen hold logic and ethics to be arts; insomuch as they do not terminate in mere theory; but tend to practice.

In this sense some branches of the mathematics also are arts; others, matters of doctrine or science. Statics is wholly scientifical, as it comprehends the mere contemplation of motion: mechanics, on the contrary, is an art, as it reduces the doctrine of flats into practice.

Art is more commonly used to denote a certain system or collection of rules, precepts, and inventions or experiments, which being duly observed, make the things a man undertakes succeed, and render them advantageous and agreeable. In this sense, art is opposed to science, which is a collection of speculative principles and conclusions.

The nature and origin of art, and its distinction from science,
Art, according to the foregoing definition, may be divided into visible and effective.—Such as leave no external effect after their operation, as dancing, singing, &c., are called visible or practical arts: those which do leave an effect behind them, as painting, &c., are called effective arts.

Further, with respect to their scope and object, they may be divided into human, as medicine and divinity, as theology.

Arts, human, again may be subdivided into civil, as law, politics, &c.; military, as fortification, &c.; metaphysical, as logic, pure mathematics, &c.; philosophical, as grammar, criticism, &c.; mercantile, to which belong the mechanical arts and manufactures. See each in its place.

Arts are more properly divided into liberal and mechanical.

Arts, liberal, or polite, are those that are noble and ingenious, or which are worthy of being cultivated without any immediate regard to the pure arising from them. They are such as depend more on the labour of the mind than on that of the hand; or that confine more in speculation than operation, and have a greater regard to amendment and curiosity than necessity. Such are poetry, music, painting, grammar, rhetoric, the military art, architecture, and navigation. The liberal arts used formerly to be summed up in the following Latin verse:

"Lingua, Fratrum, Ratio, Numerus, Tonus, Angulus, Altra."

In the eighth century, the whole circle of sciences was composed of the seven liberal arts, as they were called: viz. grammar, rhetoric, logic, arithmetic, music, geometry, and astronomy: the three former of which were distinguished by the title of trivium, and the four latter by that of quadrivium.

Arts, mechanical, are those wherein the hand and body are more concerned than the mind: and which are chiefly cultivated for the sake of the profit attending them. Of which kind are most of those which furnish us with the necessities of life, and are popularly known by the name of trades and manufactures. —Such are weaving, spinning, brewing, masonry, clock-making, carpentry, joinery, foundery, printing, &c. These arts, which indeed are innumerable, were formerly comprehended under this title:

"Res, Numerus, Arma, Faber, Vulnora, Lano, Rates."

The mechanical arts take their denomination from operam, machine, as being all practiced by means of some machine or instrument. With the liberal arts it is otherwise; there being several of them which may be learnt and practiced without any instrument at all; as logic, eloquence, medicine properly so called, &c.

The arts which relate to the fight and hearing, Lord Bacon observes, are reputed liberal, beyond those which regard the other senses, and are chiefly employed in matters of luxury; these are usually called the fine arts; such are poetry, painting, sculpture, music, gardening, and architecture.

As all arts have this common property, according to the definition above cited from Mr. Harris's dialogue, that they respect human life, it is evident that some contribute to its necessities, as medicine and agriculture; and others to its "elegance," as music, painting, and poetry. The former seem to have been prior in time to the latter. Men must naturally have consulted how to live and to support themselves before they began to deliberate how to render life agreeable. Indeed this is confirmed by fact, as no nation has been known to barbarous and ignorant, as not in some degree to have cultivated the rudiments of these necessary arts; and hence plausibly they may appear to be more excellent and worthy, as having claim to a preference derived from their seniority. The arts, however, of elegance are not debarred of pretensions, if it be true, that nature formed us for something more than mere existence. Nay further, if well-being be clearly preferable to mere being, and this, without the other, be contemplated, they may have reason perhaps to aspire even to a superiority. Harris, ubi supra, p. 54.

As the history of the origin and progress of the particular arts is receiv'd under their respective denominations in the course of this work, it is unnecessary to charge in this place. It may be observed, however, in general, that most of the arts that are necessary to the subsistence, or conducive to the convenience and comfort of mankind, have had a very early origin. Some of them may be considered as almost coeval with the human race; and others have sprung up at different periods and in various nations, so remote, that the history of their rise and of their progress for many ages is involved in an obscurity which precludes any satisfactory investigation. The want of food, raiment, and habitations, would naturally suggest a variety of inventions; and when the first and scanty demands of necessity were satisfied, mankind would proceed by further discoveries to improve the ordinary means of supply, and to lengthen and embellish the condition which providence had afforded them. But for a long time their real exigencies would be few, and their views and wishes very limited; and of course their progress in improvement would be proportionably slow and tedious. In a more advanced state of society, their necessities and desires would be multiplied, and they would devise new methods of supplying and gratifying them; so that the arts they had already invented would be improved, and new ones would be discovered. At last, as a change of circumstances occurred, or some accident suggested the hint or afforded opportunity, they would proceed from the invention of the necessary and mechanical arts to those that contributed to elegance and ornament, as well as superior accommodation. As to the inventions and discoveries of the early ages, nothing certain is known. Those arts that may be referred to the clas's of such as are most necessary and useful, were the predictions of periods when men had little acquaintance with letters, and when they polished no certain mode of transmitting an account of them to succeeding generations. The records of tradition are obscure, doubtful, or fabulous; and other modes of conveyance are subject to corruptions and mutilations in the lapse of many ages. To this purpose, it may be alleged, that many passages in the works of Pliny, who appears to have been industrious in collecting whatever he thought to be useful or curious, and to have been as defiers of communicating knowledge as he was diligent in acquiring it, have suffered in this way to such a degree, that some of them have not been satisfactorily illustrated even by the best commentators. However, it is universally allowed, that the arts laid their rise in the East; and that they were conveyed from thence to the Greeks, and from them to the Romans. The Romans, indeed, seem to have been chiefly indebted to the Greeks, by whom they were excelled in point of invention. The Romans acknowledged this superiority, for they sent their youth to Greece in order to finish their education; and from this circumstance we may infer, that they considered that country as the seat of the arts and sciences, and as a school where genius would be excited by the most finished models, and the taste corrected and formed. Pliny and other writers have, nevertheless, given hints which had escaped
ART

us to conclude, that the Romans possessed a more extensive acquaintance with the arts than the moderns are perhaps willing to allow, and that some inventions, regarded as new, may be only old ones revived and again applied to practice. When Rome, abandoned to luxury and vice, became an easy prey to the horde of barbarians who overpowered the empire, her arts flared in the general wreck, and were either entirely lost, or for a considerable time forgotten. The deplorable state of ignorance in which Europe was afterwards plunged during several centuries, retarded their revival; and it was not till a late period, when favoured and protected by a few men of superior genius, that they began again to be cultivated. It cannot, however, be denied, that several important discoveries, altogether unknown to the ancients, which must have had considerable influence on the general state of society, were made in ages that can hardly be exempted from the appellation of barbarous. Of this kind were the inventions of paper, painting in oil, the mariner's compass, gunpowder, printing, and engraving on copper; see the several articles. After the invention of the compass and printing, two grand forces were opened for the improvement of science. As navigation was extended, the new objects discovered to awaken the curiosity and excite the attention of the learned; and the ready means of diffusing knowledge afforded by the press enabled the ingenious to make them publicly known. Ignorance and superfluous, the formidable enemies of philosophy in every age, began to lose some of that power which they had usurped, and different flates, forgetting their former blind policy, adopted improvements, which their prejudices had before condemned.

In countries, however, where civil and ecclesiastical tyranny prevailed, the progress of the useful and elegant arts was slow, and struggled with many difficulties. Particular events, indeed, have occurred in all ages and nations which have roused the exertions of genius, and furnished occasion for making important and useful discoveries. The history of Greece and Rome, and, even of modern Europe, will afford many obvious facts that seem to confirm and illustrate this observation, and they will be found in detail under the respective titles in this work.

It has been well noted by philosophers, that, during the rise and growth of flates, the military arts chiefly flourished; when arrived at their height, the liberal arts; and when in a declining state, the mechanical arts. There are also divers particular arts; the art of memory, the art of decyphering, the art of swimming, the art of diving, &c.

Democritus maintained, that men learnt all their arts from brutes: that the spider taught them weaving; the swallow, building; the nightingale, music; and several kinds of medicine.

ART, term of. See Term.

ARTS; bachelor of. See Bachelor.

ARTS, major of. See Master, Degree, Faculty.

Art is also applied to divers imaginary, and even superfluous doctrines and inventions. Such are Lully's art, or the transcendental art. This is an art by means of which a man may dispit all days on any topic in matter, without understanding the least tittle of the thing in dispute; thus called from its inventor Raymond Lully. It conduct chiefly in disproving the several sorts of beings into divers scales or cliques, to be run down in a defying progres from. Thus, whatever was proposed as the subject of discourse, they would say, first, it is a being, and consequently, one true, good, perfect; then, it is either created, or uncreated. Again, every created being is either body or spirit, &c.

ART, art notoria, is a pretended manner of acquiring sciences by intuition, without any other application than a little falling, and performing a few ceremonies. It was solemnly condemned by the Sorbonne in 1320.

ART, St Anjelii's is a superfintitious manner of curing wounds, by barely touching the lincw herein which those wounds had been covered. Delrio, in his Disquisitiones Magicae, observes, that some Italian soldiers, who practised this art, attributed the invention thereof to St. Anjelii; but this affrays us also, that it was really invented by Anselm of Parma, a celebrated magician.

ART, St. Paul's, is a branch of the art notoria, so called as being supposed to have been taught by St. Paul, after his being taken up into the third heaven.

ART and Part, is a phrase used in the north of England, and in Scotland. When any one is charged with a crime, they lay he is art and part in committing the fame; that is, he was concerned both in the contrivance and in the execution of it.

The facts inferring art and part need not to be particularly laid in the libel or indictment, for these general words, as terms of flated signification, are sufficient. Yet these facts may be let forth, and it is proper so to do, if the prosecutor chooses to confide in the court rather than in the jury. Vide Mackenz. Crim. Law.

One may be art and part, 1. By giving counsel to perpetrate, without dililiction, whether the crime would have been committed without such counsel or not: this being what can never be perfectly known. But it is to be observed, that in the more atrocious crimes, he that gives counsel is equally punished as he that commits them; but in the less atrocious, less severly. And sometimes reasons of mitigation are taken from the age, the manner of advising, &c.

2. By aid and assistance, and that either previous, or concomitant, or subsequent, to the commission of the crime.

3. By a clear and explicit mandate to commit the crime, or to do somewhat unlawful in itself, which with great probability might produce it, executed by the hand of the mandatory, and not that of another.

ART hermetical. See HerMETICAL.

ART, hyssopic. See HisySOPIC.

Art, military, comprehends the order and arrangement with which public or private forces are formed and conducted, as an army, when it is to fight, to march, or to be encamped, usually denominated tactics; and also the construction and application of warlike machines.

ARTA, in Geography, a town of Switzerland, in the canton of Schwitz, on the south border of the lake of Zug.

ARTA, a river of European Turkey, which runs into the gulf of Arta, near a town of the same name.

ARTA, or Larta, a town of European Turkey, with a Greek archbishop's see, in the province of Albania, on the river Ardisias, near a gulf to which it gives name. The cathedral is said to have as many windows and doors as there are days in the year; it is supported by above two thousand marble pillars, and was built by Michael Ducas Connenos, emperor of Constantinople. The inhabitants, who are partly Mohometsans, and mostly Chirilians, are reckoned to be about seven or eight thousand, and carry on a considerable trade in tobacco and skins. The gulf is on the east side of the Adriatic. N. lat. 39° 29'. E. long. 21° 20'.

ARTABA, an ancient measure of capacity used by the Persians, Medes, and Egyptians.

The
The Persian artaba is represented by Herodotus as bigger than the Attic medimnus, by three Attic cheires; from which it appears that it was equal to 62 Roman modii, consequently that it contained 1662 pounds of wine or water; or 1263 pounds of wheat.

The Egyptian artaba contained five Roman modii, and fell short of the Attic medimnus by one modius; consequently held 1331 pounds of water or wine, 109 pounds of wheat, or 60 of flour.

The Babylonians allowed their god Belus twelve artabas of fine flour for his daily suffusion; which will amount to 60 Roman modii, and consequently 720 pounds of flour.

The Median artaba was of the same content with the Attic medimnus, and consequently equal to six Roman modii, held 160 pounds of water or wine, and 120 of wheat. Be- verin de Pond. & Menf. part ii. p. 125.

ARTABANUS, in Ancient History, the common name of several kings of Parthia. The first died in the first year of his reign, in consequence of a wound received in a battle with a tribe of Scythians, about the year before Christ 150. The second was of the race of Arfas, and was king of Media, when he was called to the throne of Parthia, about the year of Chrifl 167; and died much lamented by his subjects, about A.D. 43. The third lived in the reign of Vepshianus or Titus, and espoused the case of a counterfeit Nero; he died whilst he was meditating the invasion of Armenia. With the death of Artabanus IV. in the year 226, the Parthian empire terminated. See ARTACINE.

ARTABRI, in Ancient Geography, a people of Europe, in Spain; deriving their name from Artabrum, a promontory near which they dwelt, and corresponding to cape Finif- terre.

ARTACABANE, a town of Asia, in Aria. According to Pliny, it was larger and more ancient than Alexandria in the same country.

ARTACÉON, a small island of the Propontis, in the vicinity of Cyzicum. Pliny.

ARTACAANA, a town of Asia, situate in the northern part of Aria, on the confines of Parthia, according to Strabo. Q. Curtius makes it the capital of ARIA.

ARTACE, the name of a colony established by the Miletians in Phrygia, in the year before Christ 694. Venus had a temple in this place, whence her name Artacia.-Also, a fortress of Aria, in Bithynia, situate on the Euxine sea.—A mountain of the peninsula of Cyzicum.—A small island of the Propontis, over against the mountain of this name.—A port of Asia, on the coast of the Propontis, near to, and west of Cyzicum.—A town of Asia, in Armenia.

ARTACENA, a country of Asia, in Assyria.

ARTACH, a town of Asia, according to Curoslotae.

ARTACII, a people placed by Dion towards Thrace, and said to have been conquered by Craesus.

ARTACINA, a town of the island of Crete. Ptolemy.

ARTEA, a country of Persia, according to Pausanias.

ARTAGERA, a town of Asia, in Armenia, near which C. Cæsar was dangerously wounded by one Audus, according to Vellicus Paterculus.

ARTAGICARITA, a town of Greater Armenia, placed by Ptolemy between Arfamofara and Tigranocerta.

ARTAGICERTA, Ardis, a town of Asia, in Armenia, on the western branch of the Tigris, north-east of Armida.

ARTAGIRA, a town of Interior Libya.

ARTAKI, in Geography, a town of Asiatic Turkey, in the province of Natain, on the fourth coast of the sea of Marma, 76 miles south-west of Coutilantinople. N. lat. 40° 15'. E. long. 27° 39'.

ARTAKUI, a town of European Turkey, in the province of Romania, 48 miles north-west of Gallipoli.

ARTAMIS, in Ancient Geography, a town of the Cyrene- nian territory in the Pentapolis.—Alfo, a town of Asia, in Bactriana.

ARTAMOVA, in Geography, a town of Siberia, 120 miles south-south-east of Tobolik.

ARTAN, a town of Asiatic Turkey, in the province of Natain, 24 miles south of Akferai.

ARTANA, or ORTANA, a town of Spain, in Navarre, five leagues from Pampluna.

ARTANES, or ARTANUS, a river of Aria, in Bithynia. ARTANICA, in Botany. See CYCLAMEN.

ARTANISSA, in Ancient Geography, a town of Asia, in Iberia. Ptolemy.

ARTAS, a town of Asia, in Syria, situate at the foot, and to the east of one of the branches of mount Amanus.

ARTAS BAT, in Geography, lies in the island of Majorca, in the Mediterranean, S.W. from Cape la Padré, the western extremity of the island. The town lies between two rivers, which fall into the bay from the west and north-west. Al- cuini Bay is to the north-west from the Cape la Padré.

ARTASIA, in Ancient Geography, a town of Asia, in Syria, in the neighbourhood of Antioch.

ARTATUS, a river of Illyria, mentioned by Livy.

ARTAVIVA, in Geography, a town of Asia, in Min- grelia, 110 miles north-east of Trebizon.

ARTAXATA, in Ancient Geography, the metropolis of Armenia, and the residence of the Armenian kings. This city was built upon a plain, which Hannibal recommended to king Artaxes as a proper site for the capital of Armenia. It was situated upon an elbow of the river Araxes, which forms a kind of peninsula, and surrounded the town, except on the side of the isleannus ; and the isleannus was secured by a rampart and a broad ditch. Lucullus, after having de- feated the Armenians under their king Tigranes, would not venture to lay siege to Artaxata, which he considered as impregnable. The gates of the city were thrown open to Corbulon, the Roman general; but the city itself was burnt and razed. It was afterwards called Neronia, in compliment to Nero, who ordered Tredites to rebuild it. The ruins of this city are shown at a place called Artaxata.

ARTAXERXES, in Biography, the name of three kings of Persia. The first furnamed Longinamus and Mavus- zan, from the extraordinary length of his arms and hands, so that, on his standing upright, they could reach his knees; he succeeded his father Xerxes, who was murdered by Arta- banus, the captain of his guards. The traitor charged the death of Xerxes upon Darius, his eldest son, and induced the young prince to get rid of him in the same manner. Darius was therefore, by the counsel and advice of Artabanus, immediately assassinated, and Artaxerxes was placed upon the throne, in the year before Christ 404, notwithstanding the prior claim of his second brother Hyllaspe, who was then in Bactriana. Artabanus, having thus far succeeded, proceeded to the accomplishment of the design which he had formed of securing the crown to himself. But Artaxerxes being informed by Megabyzus of his conspiracy, prevented the execution of it by the death of the traitor. Thus esta- blished in the throne, notwithstanding the treachery of Arta- banus, and the hostile attacks of his brother Hyllaspe, he pursued a much more prudent course than that of his father, and defied from impracticable attempts to subdue the valiant Greeks, who were fighting for their liberty. At length a war between the Greeks and Persians, which had been pro- tracted for fifty-one years, was terminated, happily for both nations,
nations, and very honourably to the former. Artaxerxes proceeded, very much to the satisfaction of his subjects, to cultivate the arts of peace, and to redress the evils which had resulted from the frantic ambition of his father. Although he was an absolute prince, he distinguished himself during a long reign by his mildness and humanity. At his court Themistocles, the illustrious Athenian, who had been an avowed enemy to the Persian government, found an asylum; and here he was treated with great distinction and hospitality. Thucydides (I. i. p. 91.) refers the retreat of Themistocles to the commencement of this reign; but other authors, as Strabo, Plutarch, and Diodorus, fix this incident under Xerxes in the preceding reign. In this latter opinion Dr. Prideaux concurs. Artaxerxes was very averse to the Jews, and his latter suppised by Prid- eaux and many others to have been the Ahasuerus of Scripture, who married Esther, and by whose permission Darius restored the Jewish worship and civil government at Jerusalem. Archbishop Usher supposes that it was Darius Nothus, the son of Hyllapae, who espoused this illustrious Jewess. See Darius, and Esther. The seventy weeks of Daniel are reckoned to commence in the reign of Artaxerxes, See Prophecy. Artaxerxes died within eight months after the beginning of the forty-first year of his reign, and was succeeded by Xerxes, his only legitimate son. Prud. Comm. vol. i. p. 360. &c. and vol. ii. p. 372, 579.

Artaxerxes II., called Mimon on account of the strength of his memory, was the eldest son of Darius Nothus by his queen Parysatis, and bore the name of Artashes before his accession to the throne, in the year before Christ 454. It is related (see Athenæus, l. 12.) that when he was attending his father, who was on his death-bed, he defined instruction for the succesful conduct of government, and then appointed him to succeed him, with this memorable advice: "Thus," he expected the felicity and favours which he had enjoyed, "it must be by doing in all things that which was just both towards God and man." Artaxerxes had a younger brother named Cyrus, the favourite of his mother, and whom she wished to elevate to the throne upon the following claim: the birth of Artaxerxes had happened before the accession of his father to the throne; but that Cyrus was born the son of a king; a distinction which, however frivolous it may be deemed in modern times, had engaged Darius Hyllapae to prefer Xerxes, the younger of his sons, to his elder brother Artaxerxes. Cyrus formed a conspiracy against the life of his brother, for which he was sentenced to death, but pardoned by the intercession of his mother; he afterwards attempted, with the assistance of a Greecian force, to dethrone his brother; but, though victorious, he was killed in battle. His friends on this occasion were all destroyed; but the Greek army kept entire, and in spite of all the force and artifice with which they had to reconcile the scattered remnant of his family by a retreat, which is one of the most brilliant events in history, and is recorded by Xenophon, who was a principal actor in it. Artaxerxes x is much cenured for the weakness betrayed by him in delivering up to the vengeance of Parysatis all who had been instrumental in the death of Cyrus, though he himself boated of having inflicted the mortal wound; and for furloughing this female monster to murder them with attendant circumstances of the most exquisit terror. She soon after poisoned the queen Statira, by which she excited the indignation of her son so much, that he confined her to Babylon, and vowed never to enter the city as long as she remained there. At length, however, she was recalled to court, and main- tained considerable influence as long as she lived. The

Arta-
ART

point six leagues nearly east from the river Copalita, on the
south-west coast of Mexico, in the north Pacific Ocean:
appearing at a distance like a small island.

ARTEAGA, Steffano, in Biography. See Steffano.

ARTEDEI. Peter, born in the province of Ingmanland
in Sweden, in the year 1705, received the first
part of his education at the College of Halleland, where
he was removed to Upsal. He was intended for the
church, but his disposition leading him to the study of Na-
tural History, in which he was a student in Linnaeus, he prefer-
red practicing medicine, and applied himself to chemistry, but
his principal attention was turned to Ichthyology, in which
he made considerable progress. In 1732, he came to Eng-
land in pursuit of his favourite study, at the same time that
his friend Linnaeus set off to examine the natural pro-
ductions of Lapland. On paring, they mutually assigned
to each other such manufactures as they should be in pos-
fession of treating on natural history, in case either of them
should die in their travels. This event however did not
then take place, as they met together at Leyden in the
year 1735. It was here that Linnaeus engaged his friend
in the superintend the printing of the third volume of Seba's
Thecannus, which treated of fishes. Returning one evening
from Seba's house to his lodgings, while prosecuting this
business, he fell into the canal, and was drowned, being
only 30 years of age. Linnaeus, who got possession of his
manuscripts, published his 'Bibliotheca Ichthyologica,' and
his "Phylogenia Ichthologica" in 1738, with the life of the author prefixed. He had before published his
"Classification of Umbelliferous Plants from the Calyx." 

GEN. BIOG.

ARTÉDIA, in Botany (from P. Artedi, a student
of medicine in Sweden), an umbelliferous plant, formerly called
Partial, small, similar. Involucr um uniflor., about ten-leaved;
leaflet ovate-oblong, three-brilled at the end, nearly
the length of the umbel; Partial, two or three-leaved, verging
outwards; leaflet linear, pinnate, longer than the umbelule.
Cor. uniflor. diliform, radiate; florets of the disk abortive.
Pet. of the disk, male; petals five, corolla longer than the
stamens, hermaphroditic, with similar petals, but the outer-
most largest. Stamina five, calyptrate in all the florets;
spathers simple, rounded. Fil. of the ray, germ small, in-
fessor; styles reflex; stigma simple. Per. ovate; fruit rounded,
compressed, leaf-like, seated on the edge, bipartite. Seeds
two, oblong, rounded, spreading, scales about the edge.

fruit, rough with scales.

Species, t. A. fumawut, flasks, about two feet high,
founding for a few late branches, with linear multifid
leaves, resembling those of dill; flowers white, in a large
terminal umbel; fruit-bearing umbel converging; involucre
many-leaved, having the leaflets margined at the base; petals:
as in the tordium; annual, flowering in July. Found on
Mount Libanus by Rauwolf, and by Tournafort in Notalia.
Introduced by Mr. Thouin in 1788.

Propagation and Culture. The seeds should be sown in
autumn in a warm border, where the plants are to remain,
for they do not bear transplanting. To secure their feeding,
they should be raised in a hot-bed, and kept in a green-
house.

ARTECIA paniculata. See DAUCUS.

ARTEL, in Commerce, a name given to a commer-
cial association, consisting of a certain number of labourers, who
voluntarily become responsible, as a body, for the honesty
of each individual. The separate earnings of each man are
put into the common stock; a monthly allowance is made
for his support; and at the end of the year the surplus
is equally divided. The number varies in different associations,
from 50 to 100; and it is considered to be of benefit to belong
to one of these societies, that 350, and even 1000 roubles
are paid for admission. These societies are not bound by any
law of the empire, or even written agreement; nor does the
merchant restrain them under any legal obligation; yet there
has been no instance of their objecting to any just claim, or
of protecting an individual whose conduct had brought a
demand on the society. Hence arises the denomination of
Artelshiefs, who are persons employed by the Russian mer-
chants of St. Petersburg to collect payment on bills, to re-
ceive and pay money, and also to superintend the loading and
unloading of the different cargoes. These Russians are
mostly natives of Archangel and the adjacent governments,
of the lowest class; they are frequently slaves, generally of
the crown; and yet the merchant has no reason to distrust
their fidelity, partly from the nature of their affiliation,
and partly from the natural reluctance of the Russian to
bear the confidence that is reposed in him.

ARTEMIDIS, in Ancient Geography, a town of A sia,
in Leffer Armenia, called by Ptolemy, Artemidia, or Ar-
tempis.

ARTEMIDORUS, in Biography, a remarkable vision-
ary, who spent his whole life in attempting to solve the
mysteries concealed, as he apprehended, in dreams. For
this purpose he not only collected all that had been written
on the subject, but travelled over Greece, Asia, and Italy,
to learn such stories relating to them as were current in those
countries. He was born at Ephesus, in the time of Antoninus
Pius, as we learn from a passage in his work, called "Oni-
ocrítica," the interpretation of dreams, which, though mis-
based in this strange fancy, still keeps its rank, on account
of the information it contains relative to ancient rites and
customs. "Rum i speciebus," Gerard Vosius says, " nihil
coepit vanus: fidetis tamen eum lectio eicit om tam multa,
qua admittere de ritibus antiquis et fidei humanis," e
In this work he assumed the surname of "Daldanian," from
Dalsius, a seafarers of Lydia, the birth-place of his mother.
The Onior-critica was first edited in Greek, by Aldus, in
Svo., in 1518. Coronarius published a Latin translation at
Bafle, in 1577; which was reprinted with the Greek text
in 4to., at Paris, in 1604, by Rigaltius. Lucian Philopa-
§ 5. 8. 6. iii. p. 402.

ARTEMIDORUS, a geographer of Ephesus, is frequently
commended by Strabo, Pliny, and Steph. Byz., and flou-
rished about the 160th Olympiad, or the 104th year before
Christ. His description of the earth is often cited by the
ancestors. Some fragments of this geographer are collected
in the first volume of Hudson's Leffer Greek Geographers.

ARTEMIS, in Entomology, a species of Papilio (Nymph.
Phal. Gmel.) that inhabits Germany and some other parts
of Europe. The wings are indented, falciform varied with
black: a row of black spots both above and beneath on the
posterior pair. Fabr, ccc.

ARTEMISIA, in Antiquity, yearly festivals observed in
diver cities in Greece; particularly Delphi, in honour of
Diana, named Artemis.

In the artemis, a milklet was sacrificed to this goddess, as
being thought to bear some resemblance to her, because
it is said to hunt and kill the shehare. Athen. lib. viii. The
Syracusans also celebrated the artemisia for three days,
with great joy and festivity.

ARTEMISIA


*Shrubby, erect.*

Species. 1. A. vermiculata; leaves acerate, crossed, very small; panicle racemose, on the floor of the cell. A stiff upright, common, alvine, pinnate, on the upper surface tomentose, beneath naked, and rather convex; pinnate, imbricate, confining of racemes, formed of felied, ovate, imbricate spicules; flowers tomentose. A native of the Cape of Good Hope. 2. A. capillaris, Thunb. Jap. 1809. "Leaves simple, capillaceous." The item is stilted, redflut, a foot high; branchlets scattered, subflabellate, from upright spreading, like the item; leaves many, smooth, half an inch long; flowers in close racemes, on the extreme twigs. A native of Japan, where it flowers in October. 3. A. judaica, abanathinum halepense, &c. Pink. Alm. t. 73. f. 2. "Leaves obovate, obtuse, lobed, small; flowers panicled, pedicled." The item suffruticose, subpuedificant, ashes-coloured, a foot and a half high; leaves three or five-lobed, subtomentose, ash-coloured, middle leaf the broadest; flowers roundish, rather depressed, the size of crimson feathers. A native of China, Judea, Arabia, &c. 4. A. Athabepica; "leaves palmate, linear, very minute; flowers racemose, peduncled." A shrubby plant, one foot high, white; leaves the size of those of heath, in clusters, subtomentose; divisions linear, very narrow; flowers nodding, the size of those of wormwood; receptacle naked. A native of the Cape of Good Hope, and of Spain. 5. A. caudata; "leaves palmate, linear, minute; panicles racemose, flowers filiform." An upright, tomentose, white shrub; leaves crowded; flowers imbricate, small, in spikes, which fit close to the branches. Found by Ltere in Peru. 6. A. abramerum, fothernwood. Woodv. Med. Bot. t. 119. A firm erect, common fothernwood. A Dwarf fothernwood.

"Leaves stelose, very branching." A well-known under shrub, common in gardens, rising three or four feet in height; leaves alternate, petioled, multitudinous; leaves linear, very narrow, pale green, tomentose-labiate, 6ids divided towards the top, where they become thin, and even linear next the flowers, which are in upright spikes at the extremities of the branches; they are numerous, nodding, yellow, but rarely open in England. A native of the Southern parts of Europe and of Asia. 7. A. arboreum, common narrow-leaved tree-woodworm. "Leaves thin, whitish, silky, cinereous; leaves linear; flowers globose; flower-bearing branches simple." The stalk is woody, fix or seven feet high; leaves resembling those of common wormwood, but much whiter, and more finely divided; flowers globular, in spikes, terminating the branches. This is some confederated as a variety of the common wormwood. A native of Italy. 8. A. argentea, broad-leaved tree-woodworm. "Leaves bipinnatifid, silky, white; leaves lanceolate-linear; flowers globose; flower-bearing branches wand-like." The whole plant is of a silvery colour; receptacle villose. A native of Madeira, where it was discovered by Maffon, and introduced here in 1777. 9. A. arganiae; "leaves linear, bipinnate, hairy; flowers racemose, scarcely a foot high; upper leaves simple, linear; racemes small, axillary. 10. A. defferschmidtii; "leaves linear, multitudinous; racemes erect, slender, loose." The item is upright suffruticose; the whole plant tomentose. 11. A. Tartarica; "lower leaves bipinnate; pinnae equal; upper leaves pinnate, linear; racemes erect, loose, many-flowered." This, like the preceding species, is a tomentose under-shrub. They were both found in Tartary by Mefferich. See Stechin. p. 19. n. 9 & 10. 12. A. nitroa, Gmel. Sib. 2. t. 50. f. 1. "Lower leaves finely multitudinous; upper entire, obtuse; corollines erect, hoary, oblong, spicate, filiform, felliform." A native of Siberia. 13. A. lebriana, Gmel. Sib. 2. t. 50. f. 2. 3. "Lower leaves finely multitudinous; upper entire, obtuse; corollines erect, hoary, oblong, spicate, filiform." A native of Siberia. 15. A. paviiflora, Gmel. Sib. 2. t. 52. f. 1. 2. "Branches virgate, tomentose; corollines one-ranked; spikes subfiliform." Calyx three or four flowered. A native of the banks of the Volga; and a rarity by Gmelin between the rivers Jenifa and Iris. 14. A. ten. Ille. Alfi. ser. Hisp. Tournef. infil. 45. "Leaves short, very finely multitudinous; corollines slender, loose, leafy; peduncles one or two-flowered." Stem woolly. A native of Spain. 15. A. paviiflora, Gmel. Sib. 2. t. 52. f. 1. 2. "Branches virgate, tomentose; corollines one-ranked; spikes subfiliform." Calyx three or four flowered. A native of the banks of the Volga. 16. A. italica, Pluk. phyt. t. 121. f. 2. "Leaves tomentose, loofely pinnate; pinnae long, linear; root-leaves dotted; spikes dense; flowers erect." A native of Italy. 17. A. hispanica; "leaves loosely pinnate; pinnae long, linear; spikes very dense; calyces oblong;" not tomentose. A native of Spain. 18. A. Gmelini, Gmel. Sib. 2. t. 56. f. 1.
**Artemisia.**

1. "Leaves doubly pinnate, obtuse, linear; coriaceous green, roundish, nodding." The leaves are sub-velvety underneath. Found by Gmelin near the rivers Lena and Angara. 19. A. lobata, Allion, ped. n. 607. A. camphorata. Villar's Dauph. 242. "Leaves petiolate, palmate, multifid, linear; upper ones simple, angular." This is a smaller plant than common fothernwood, and has a strong coriaceous smell. The leaves are leathery, and those about the flowers broader, longer, and not so much cut. The coriaceous are larger, and thinner, and the flowers of a fine yellow. A native of Piedmont, Dauphiné, &c.

**Proctorum before flowering.**

20. A. fontanica. Tartarian fothernwood or worm-wood, Med. Bot. t. 123. "Stem-leaves bipinnate, multifid; branches undivided; spikes one-ranked, reflex; flowers with five florets." Stem panicked, rather hoary; lower leaves pinnate, multifid, linear; branches wool-like; spikes alternate, recurved; flowers round, nodding, solitary; leaves on the branches undivided, nearly linear. A native of Tartary, and cultivated by Miller in 1768. It flowers from September till November. 21. A. campdress, field fothernwood, Hudw. 257. With. 729. Eng. Bot. t. 378. Smith. 803. Abrotanum campdress. Ray Syn. 190. Ger. Em. 1165. "Leaves multifid, linear; stems procumbent, wool-like; root fusiform." Stems prostrate, ultimately erect, about two feet in length, virent, paniculate, angular, smooth, reddish, leafy; leaves irregularly bipinnatifid, rather reflex, somewhat hairy underneath; radical leaves depressed, and with longer foot-flanks; those on the stem alternate, minute, compound; flowers in racemes, drooping, small, of a brownish green; scales of the calyx carnose, and rough at the margin; florets of the disk about fifteen, yellow, with a purple apex; those of the ray only two or three, very small, subulate, closed, entire; receptacle naked, convex. It has been found in several places in Norfolk and Suffolk. This plant differs from common fothernwood, as its odour is so weak as to be scarcely discoverable. 22. A. palustris, marsh fothernwood, Gmel. Sib. t. 555. "Leaves linear, pinnate, entire; flowers glomerate, subsefife." The leaves referable those of a buckhorn plantain, with five or seven segments; flowers yellow, receptacle naked. A native of Siberia. 23. A. erythraea, dill-leaved fothernwood. "Leaves compound, divaricate, linear, febbly, smooth; stem rising, paucised." It has the habit of the A. camphorata; stems from half a foot to a foot in height; leaves pinnatifid and trifid. Found by Loefling on the sandy shores of Holland. Cultivated by Miller in 1768. 24. A. vallescasa, downy fothernwood; "leaves pinnate, many-paired, filiform, tomentose; flowers sessile, erect, subco- lumnar, having few florets." An erect shrub, a foot high; leaves hoary, bipinnate; pinnae pinnate, and also tribolate; flowering branches tomentose, alternate; flowers tomentose, with linear bracts; scales of the calyx concave, outer tomentose, inner membranaceous. No female florets. A native of Spain, Piedmont, and the Valais, flowering in August. Introduced by Dr. Pitcairn and Fothergill. 25. A. maritima, sea fothernwood, Hudw. 358. With. 709. Woolly. t. 122. Smith. 804. "Leaves many-paired, tomentose, racemes drooping, receptacle naked; flowers threefold." Root woody, perennial; stems erect or decumbent, leafy, furrowed; lower leaves pinnate; pinnae tripartite; upper various, divided, at the top simple, all entire at the margin, and white on both sides; racemes drooping; flowers ovate, nodding. There are three varieties of this species. A British plant growing on the sea-coast, and flowering in August. 26. A. glaucescens, silky fothernwood, Jacq. Alp. t. 35. "Leaves palmate, multifid, silky; stems ascending; flowers glomerate, level-topped." Leaves small, three-parted, linear, segments trifid, subsefife, silky white, tomentose, very short on long foot-flanks; those below fleathering the items which are a span high, simple, subto- mentose, leafy; flowers glabrous, yellow, terminal, on very short peduncles; receptacle hairy. Villar describes it as three or four inches high, with about four terminal flowers, including from forty to fifty florets. A native of the south of Europe, flowering in August; cultivated by Miller in 1748. 27. A. rupestris, creeping fothernwood, Flor. Dan. t. 801. "Leaves pinnate; stems ascending; flowers glabrous, nodding; receptacle pappose."" It grows near a foot, hoary, hirtufate; leaves on long foot-flanks, narrow, having two or three pairs of pinnae, with an odd one; pinnae three or five-paired; flowers axillary, on long peduncles, nodding; receptacle hairy. A native of Alpine situations, cultivated by Miller in 1748; flowers in August. 28. A. fruticosa, spiked fothernwood. Jacq. Alp. t. 34. "Root-leaves biternate; stem ascending; flowers erect." Linnaeus made this a variety of the rupestris, but Haller says, though it has the same habit, the leaves in this case are much broader and each pinnax trifid, and the nerves is very broad; on the stem the leaves are sessile, semipinnate, with four pairs, the last largest, shortly trifid; pinnae not branching, scarcely a span high; peduncles one-flowered; leaflets of the calyx ovate, dark coloured, and hence called Genipi noir. A native of the Alps of Swizer- land, Austria, Piedmont, and Dauphiné.

**Ercti herbaceous, with compound leaves.**

29. A. arctica, dill-leaved fothernwood, Gmel. Sib. t. 54. "Leaves multifid, very slenderly divided; coriaceous roundish, nodding, one-ranked, filthy, spiked;" the item is herbaceous; florets reddish; calyces large, green, and streaked with white. A native of Siberia. 30. A. pontica, Roman fothernwood. Jacq. Alp. t. 99. "Leaves many-paired, tomentose beneath; flowers roundish, nodding; receptacle naked." Stems in their natural state short, of two feet high, but when cultivated in gardens, four; upright, reddish, smooth, hoary, branched. Stem-leaves bipinnate tomentose, with sharp linear segments, uppermost entire, simpie, those at the bottom of the branches and top of the item are simple pinnate; flowers in racemes, nodding, hoary; disk yellow; florets 24, those in the circumference about six, female, apetalous, and of a greenish yellow; the others hermaphrodite; seeds naked; receptacle conical, naked. A native of Germany, Piedmont, &c. flowering in September. Cultivated here in 1843. 31. A. aphylla, Auriachian fothernwood. Jacq. Alp. t. 100. "Leaves many-paired, tomentose, hoary; flowers oblong, nodding, receptacles naked." Stems from six inches to a foot and a half in height; branches numerous, sending forth simple short twigs, which are one-flowered on the shorter items, but on the greater many-flowered; leaves on the twigs are first entire, then trifid, and -fo on, increasing the divisions till they become subtrilobulate-pinnate; hermaphrodite florets about eight, females from four to seven, apetalous. It differs from the maritima in the leaves, being less tomentose and hoary, roundish, and not oblong. A native of Austria. 32. A. anomalis, dill-leaved fothernwood, Gmel. Sib. n. 108. "Leaves three-fold pinnate, smooth on both sides; flowers fagiforme, nodding; receptacle smooth, conical." An annual, with a creft, smooth, streaked stem, rising to eight feet in height, though seldom higher than two in our climate; flowers yellow on axillary racemes; peduncles long, with lanceolate entire bractes; all the florets hermaphrodite. A native of Siberia and China; cultivated by Miller in 1759. It flowers in August. 33. A. tanacetifolia, tanfy-leaved
leaved wormwood, Allson. Ped. n. 668 t. 70, f. 2. Gmel. Sib. 2. t. 58. "Leaves bipinnate, underneath tomentose, shining; pinnae transverse; racemes simple." Stems numerous, simple, from five inches to a foot high; root-leaves sheathing, petioled, ovate-pointed, all-coloured, having from five to eight pinnae; pinnales three-toothed; pinnales of the stem-leaves simple; upper oval, lanceolate; spikes terminal, compound, with racemes rising from all the axis; in the terminal spike there is a diplole to each peduncle, which is one-flowered; flowers nodding, in pairs, all towards the same side; receptacle naked; perennial. A native of Dauphiné, Piedmont, and Siberia. In this it is sometimes entirely tomentose. 34. A. absonbium, common wormwood. Huds. 359. With 710. Woodv. Med. Bot. t. 123. "Leaves multitid, of a filky white; flowers hemispherical, pendulous; receptacle hairy." Root woody, branched; stems rather erect, branched, angular, pinnate at the top, lower-leaves, bipinnatifid; upper, pinnatifid, or digitate; divisions elliptic-oblong, obtuse, entire; racemes erect; flowers nodding, yellow; florets of the disk numerous, of the ray very few; receptacle very hairy. It grows wild among rubbith, rocks, and on road fides. 35. A. vulgaris, mugwort. Huds. 359. With 710. Med. Bot. t. 121. "Leaves pinnatifid, flat, gashed, tomentose underneath; racemes simple; flowers ovate; receptacle naked." Root woody; stems four feet high, erect, branched, pinnate, furrowed, smooth, leafy, purplish. Leaves alternate, petiolar, pinnatifid, gashed above and smooth, of a dark green, underneath tomentose, very white; racemes somewhat erect, simple, leafy; flowers feifie, erect, ovate, woolly; receptacle naked; florets of the ray five. It affects similar situations as the preceding species, and like it flowers in August. 36. A. pectinata. "Leaves pinnate, pectinate, smooth, feifie; flowers axillary, solitary, feifie, having four florets? a fragrant annual having a stem about eight inches high. It is easily to be distinguished by its feifie pinnate leaves; pinnae feifie, parallel, pinnatifid; flowers solitary, from the axis along the stems. Found by Pallis in the dry lands of Dauria.

37. A. integrilolia, entire-leaved mugwort, Gmel. Sib. 2. t. 48. f. 1. "Leaves lanceolate, tomentose underneath, entire or with one or two teeth; female florets five." Stem simple, about two feet high; leaves narrow, cut into acute segments at their edges, somewhat like those of buck's horn plantain; flowers axillary, in small loose spikes, large, of a pale yellow. A native of Siberia. 38. A. japonica, Japanese wormwood, Thunb. Jap. 110. "Leaves on the branches smooth, lanceolate-entire, on the stem oblong, trifid; flowers racemed, nodding." An underthub with an erect angular, feared, wand-like, smooth, feim, branched at the top, and above two feet high; leaves on the stem alternate; feifie, attenuated, and entire towards the base, but towards the top cut, ferrate, spreading; those on the twigs similar, but very small; flowers pointing in the same direction, on capillary reflex peduncles. It differs from the cerculescens in having smooth leaves. A native of Japan. 39. A. cerculevens, bluish mugwort, Huds. 359. With 711. Smith, 806. Gmel. Sib. 2. 131. t. 64. f. 1. Abf. maritimum lavandulae folio. Bath, pin. Ray Hist. &c. "Leaves hoary; on the stem lanceolate, entire; lower leaves multiid; flowers cilindrical; receptacle naked." Root perennial fibrous; stems nearly erect, round, channelled and pubescent, leafy panelied; leaves alternate, petiolar, hoary on both fides; racemes erect, simple; flowers ovate-cylindrical, small; florets of the ray three. A native of the southern parts of Europe, on the sea-coast; and found in Lincolnshire. Cultivated by Tradescant, jun. in 1658. 40. A. dracunculus, Tarragon. Scop. Carn. 0. 1032. Gmel. Sib. 2. t. 59 & 60. f. 1. Drake herb, Ger. Emac. 249. Park. Rau Hill. "Leaves lanceolate, smooth, quite entire." Stem divil, smooth, branched, from one to two feet high; leaves petiolate, green on both fides; flowers yellow, in a kind of spike all directed the same way; hermaphrodite florets twelve, female six; receptacle flat, glutinous, naked. A native of Siberia and Tartary. Cultivated in 1596, by Gerard; flowers appear in August. Tarragon is frequently used in salads, especially by the French, to correct the coldness of other herbs. The leaves make an excellent pickle, they have a fragrant smell, and aromatic taste. 41. A. chinenis, Chinese Mugwort. Gmel. Sib. 2. 61. f. 1. 2. Lour. 402. "Leaves simple, tomentose, obtuse, lancolate; below wedge-shaped, three-lobed." Stem herbaceous, simple, cottony, branched, between two and three feet high; lower leaves obtuse, three-lobed; upper lanceolate-linear, entire, tomentose on both fides, feifie crowded, scattered; flowers small, on terminating erect racemes. A native of China and Siberia. In China the moxa is prepared from this species. See Med. Prop. 42. A. madrophaenum. Madras Wormwood. Jacq. Hort. 2. t. 58. called by him Tanacetum Egypt. "Leaves simple, lyrate linnate; items procumbent; flowers pedunculate, solitary, globose, opposite to the leaves; an annual, growing close to the ground; branches alternate, streaked, pubescent; leaves folf, widening outwards; peduncles one-flowered, naked, streaked, villo; flowers large, yellow, with a convex disk. A native of the East Indies. Introduced in 1782, by M. Thouin. 43. A. minima, leaf wormwood. Burm. Ind. i. t. 58. f. 5. centipeda orbicularis. Lour. 403. "Leaves wedge-shaped, repand; them procumbent; flowers axillary feifie." This is a very minute annual; leaves smooth; flowers very small, axillary, solitary, with six or seven foles. A native of China, where it was found by Lagerstrom, and also of Japan; introduced here by M. Thouin in 1783. 44. A. littoralis, Retz, Obf. 5—28. n. 77. "Procumbent, frigole; leaves pinnatifid, ferrate-toothed; calyces naked, pedicelled." This resembles the forty-second species, but the whole plant except the calyces is covered with a downy or cottony subfiance. Gathered by Koening in the East Indies, on the coast.

Medical Properties. Many of the species of artemisia posse simple feifie and medicinal qualities; but those species which now have a place in the Materia Medica, are southerwood, common wormwood, mugwort, sea wormwood, and Tartarian southerwood or wormwood. The first has been esteemed as a flomachic, carminative, and deobstruent, and used more especially for removing obstructions in the uterine system. But it is now rarely preferred unless as an ingredient in fomentations. Common wormwood is intensely bitter, and is the most powerful medicinal of the whole genus. Its qualities are flated by Bergius to be antifeptic, antacid, anthelmintic, refolvent, tonic, and inflamachic. Though it is now chiefly employed in the two last mentioned characters, yet we are told of its good effects in a great variety of disorders, as intermittent fevers, hypochon- droiac alfections, vesicular obstructions, gout, gravel, feanny, drophy, worms, &c. With some it is said to have a narcotic power, and to occasion head-ache. It may be given in powder, but it is more commonly preferred in infusion. The Edinburgh college directs a tincture of the flowers. Externally wormwood is used in difcunt and antifeptic fomentations. Mugwort was by the ancients thought to be very efficacious in promoting the uterine evacuation, and relieving hysterical complaints, but it is now so little valued that

5

it
it has been expounded from the Materia Medica by the London college. A subsance called moxa is prepared in Japan, from the dried tops and leaves of mugwort, by being and rubbing them between the hands till only the fine lanuginous fibres remain, which are then combed and formed into little cones. These used as cauteries, are greatly celebrated in eastern countries for preventing and curing many disorders; but chronic rheumatism, gouty and some other painful local affections, seem to be the chief complaints for which the moxa can be rationally employed. Sea wormwood, by being left powerfully bitter, must be confidered in a proportionate degree a less efficacious medicine than the common; but as it is left disagreeable to the stomach, it is more generally preferred; and a confcrve of the tops of this plant is directed in the London and American practice. Worm-feed is a solid matter from the power of these seeds in destroying worms, for which their character has been long established. The dofe is from one to two drams for an adult, twice a day. See Woodv. Med. Bot.

Propagation and Culture. Most of the plants of this numerous genus are hardy perennials, and may be increased without much difficulty by seeds, parting the roots, slips, or cuttings. The first species and a few others that are natives of very warm climates, and of course rather tender, must be placed in a green-house with myrtles, and other hardy exotics, which require a large space of free air. In mild weather, when they should be frequently watered. They love a light fresh soil, and may be propagated by slips, or cuttings. In general they will succeed in a shady border, defended from the froid. See Martyn's Miller's Dict.

ARTEMISIUM, in Ancient Geography, a promontory of Euboea, on the northern side of the island, above the town of Hilaria, and opposite to the ancient Olympos, and the Pegasean gulf. It had a temple consecrated to Diana; and it was famous for the first victory gained by the Greeks over the fleet of Xerxes. This naval engagement happened on the same day with the glorious action at Thermopylae. The Grecian fleet, confisting of 271 sail, was stationed in the harbour; but that of the Persians, which was much more numerous, had anchored in the road that extends between the city of Callanassa, and the promontory of Sepsias on the coast of Thebly. The first line of their fleet was sheltered by the coast of Thebly; but the ships of the other seven lines rode at anchor, with their prows turned towards the sea. On the morning of the second day after their arrival on the coast, and after their arrangement was made, there arose a dreadful storm, which raged for three days, and which destroyed 400 of their galleys, besides a great number of store-ships and transports. However, 300 ships of war, together with many vessels of burden, failed into the Pegasean bay, and anchored in the road of Apielet, which, at the distance of a few miles, lies directly opposite to the harbour of Artemisium. The Grecians, who had posted centurions on the heights of Euboea to the effects of the storm and the motions of the enemy, upon receiving information of the dilater that had befallen the Persian fleet, poured out a joyous liberality, and sacrified with devout gratitude to "Neptune the Deliverer." The Persians, notwithstanding their loss, were still confident of victory; and detached 300 of their best-flying vessels round the island of Euboea, for the purpose of encumbering the Grecian fleet, and of preventing any of them from cleaving through the narrow Euripus. After fun-fet the Grecian fleet approached in a line, and were met by the Persians. At the first signal, the Greeks were formed into a circle; and at the second, began the engagement. Surrounded as they were by the enemy, and crowded into a narrow space, they soon took 30 of their ships, and sunk many more. When night came on, with a violent storm of rain and thunder, the Greeks retired into the harbour of Artemisium, and the enemy were driven to the coast of Thesly. The greatest part of the Persians fortunately escaped immediate destruction, and gained the Pegasean bay; but the ships that had been ordered to sail round the island, were overtaken by the storm at a considerable distance from the shore; and, unable to direct their course, they were under a necessity of contending with the storm during the greatest part of the night, and they were all wrecked amidst the shoals and rocks of an unknown coast. With the dawn of morning the Persians perceived the extent of their misfortunes; but the Greeks were usefully reinforced with a fleet of fifty-three Athenian ships. Thus aided and encouraged, they seized the advantage of the ebbing dusk of the evening, to renew their attack; and, at the appointed time, availing themselves of their skill in fighting, and the knowledge of the coast, they fled towards the road of Aphete; and having cut off the Glician squadron from the rear, totally destroyed it; and at night returned to Artemisium. The Persians, enraged by the disasters and disappoointment they had experienced, and dreading the resentment of their sovereign, determined to make one other vigorous effort. As the Greeks had availed themselves of the night, they determined to choose the time of action. Accordingly, on the third day at noon, they sailed forth in the form of a crecent, which they conceived to be of sufficient extent to enclose the Grecian line. The Greeks, emboldened by successes, were too confident to decline another offer of battle, though their admirals, and particularly Themistocles, would probably have preferred delaying it to a more favourable opportunity. The deficiency of skill and courage on the part of the barbarians was supplied by the impetuosity and violence of indignation. The battle was protracted, and remained for a longer time doubtful than any former occasion; many Grecian vessels were destroyed, five were taken by the Egyptians, who, on the side of the Persians, distinguished themselves as much as the Athenians did on that of the Greeks. The persevering valour of the latter at length prevailed; the enemy retired, and acknowledged their superiority, by leaving them in possession of the dead and the wrecks. However, the victory was dearly purchased; as their vessels, and especially those of the Athenians, were much scattered; and their great inferiority in the number and size of their ships, made them more sensitively feel every diminution of strength. The engagement at Artemisium, though it was not absolutely decisive, contributed greatly to encourage the Athenians, who were now convinced, that the enemies, notwithstanding their immense number, were not invincible. Gillies's Hist. of Greece. See Athens.

ARTEMISIUM, a town of Caria, situate in the eastern part of the gulf of Glancus. — Also, a place in the island of Delos, Herodotus. — Also in the place of the Peloponnesus, Polybius. — A city of Italy, in Magna Graecia, belonging to the Oecistrians; now called Arani; in the island of Greece, between that of Euboea and the promontory of Sunny Arrian. — A mountain of Peloponnesus, in Arcadia, near the river Ladon. Pausanias mentions a mountain of this name, to which he refers the source of the river Inachus, and where was a temple of Diana. — Also a place of Sicily, where was the camp of Sextus Pompeius, Dion & Appian. — A port of Greece, built by Julianus, at the mouth of the river Rechius or Reus. — A town on the eastern side of Spain, called also Dianium, and now Denia, on the sea-coast of Valencia. Artemisium, in Ancient Chronology, the name of a Grecian month, the seventh of the year among the Macedonians.
ART

mans, in Asia, at Ephesus, Pergamus, &c. among the Syro-macedonians, Tyrians, Sydolians, and Lyceians. Among the Lacedemonians and Corcyreans it was the second mouth of the year, and corresponded nearly to our February. 

ARTEMITA, in Ancient Geography, a small isle of the Ionian sea, opposite to the mouth of the river Acheius. — Alfo, a large town of Asia, in Mesopotamia, according to Pline, but placed by Strabo in Babylonia, 500 fadca call of Selencia, on the banks of the lake Artifis. — A town of Asia, in the Greater Armenia. — A town of Asia, in Arabia Deserta. Ptolemy.

ARTEMUS, a mountain of Peloponnesus. Pline.

ARTEMON, or ARTEMAS, in Biography, the leader of an ancient sect among the Christians, and supposed by Tillemon to have arisen about the year 200. Enphilus (E. H. l. c. 37, 28), early in the fourth century, speaks of him as the propagator of a heresy, which Paul of Samosata endeavoured to revive in his time. Artemas and his associates, according to Theodoret, concurred with other Christians in acknowledging the supreme deity, and owning him to be the creator of the universe. But they maintained, that Christ was a mere man, born of a virgin, and superior in virtue to the prophets. This, he said, was the doctrine of the apostles; and they alleged, that all the ancients, as well as the apostles themselves, received and taught the same things which they now held; and that the truth of the gospel had been preferred till the time of Victor, the thirteenth bishop of Rome; but by his successor, Zephyrinus, the truth had been corrupted. They are accused, however, in a work cited by Enphilus, with corrupting the scriptures, and transferring them with variations, which they called emendations, but which their enemies denounced corruptions. They are said to have proceeded so far as to have rejected the law and the prophets. It was also charged upon Artemon and his followers, that they neglected the holy scriptures, studied geometry, and admired Aristotle, and Theophrastus, and Galen. From this account it appears, that whatever might be their error, they were men of inquiry and learning; and Dr. Lardner conjectures, they might join with the study of the scriptures that of mathematics and philosophy. He also imagines, that the alterations or corruptions, which were the fubjects of complaint, related merely to some Greek copies of the old testament, probably the seventy; and though he does not wholly exclude these men, he thinks this consideration may serve to lessen the injury of their conduct. Lardner's Works, vol. ii. p. 359, and vol. ix. p. 465, &c. The followers of Artemon were called Artemonites.

ARTEMUS, in Geography, a cape of Spain, in Valencia, called also the "Cape of St. Martin" and the "Emperor's point."

ARTENA, in Ancient Geography, a town of Italy, in Etruria, in the territory of the Cetzer, mentioned by Livy, as destroyed by the kings of Rome. — Alfo, a town of Italy, in Latium, in the country of the Volsci; which was taken, says Livy, about the year of Rome 351, and totally razed.

ARTENAY, in Geography, a town of France, in the department of the Loiret, and chief place of a canton in the district of Neuvile, 11 miles north of Orleans.

ARTENNA, or AVIS DIOMEDEA, in Ornithology, a name given by Ray, Willughby, and other old writers, to the bird called by Linnaeus Procellaria Puffinus; which sec.

ARTERN, in Geography, a town of Germany, in the circle of Upper Saxony, and county of Mansfeld, 29 miles N. N. E. of Erfurt. N. lat. 51° 17'. E. long. 11° 8'.

ARTERIA ASPERA, in Anatomy, the tube by which the air passes into and out of the lungs in respiration. It is also called the trachea, and windpipe. See Lungs.

ARTERIA Vena, a name given by the ancients to what we call the pulmonary vein, or that vessel whereby the blood is conveyed from the lungs to the left ventricle of the heart. See Def. Med. p. 54.

ARTERIACS, ARTERIAC, medicines proper for disorders of the trachea, and the voice. This term, says Dr. Cullen (Mat. Med. vol. i. p. 172.), conveys no precise meaning, and is therefore improper.

Arteriacs are reduced by Galen into three kinds: 1. Such as are void of all acrimonious, serving to mollify the aperities of the part; to which kind belong: gum tragacanth, after fumus, amygdal, or parch, milk, &c. 2. Those of an acrimonious quality, whereby they stimulate even the found parts; such are honey, turpethines, bitter almonds, iris root, &c. 3. Those of an intermediate kind, soft and mild, yet deterrent; such are butter, and divers preparations made of almonds, milk, honey, &c.

ARTERIOSA Vena, or arterial vein, a denomination given to the pulmonary artery, or that vessel whereby the blood is conveyed from the right ventricle of the heart to the lungs.

ARTERIOSUS Cava is the continuation of the trunk of the pulmonary artery of the foetus into the aorta. See FOLUS, Peculiarities in the Structure of.

ARTERIOTOMY is a surgical operation, so denominated from arteria, an artery, and teneo, I cut. It therefore signifies, the artificial section, or opening of an artery, for the purpose of evacuating blood. The advantages and disadvantages of this operation, as well as the manner of performing it, are considered under the head of BLEEDING: where the subject of PHLEBOTOMY is likewise discussed at some length.

END OF VOL. II.